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ABSTRACT

To investigate the relationship between racial integration and student's level of occupational expectation, questionnaire data were obtained from a sample of 1,264 high school male seniors in 84 integrated and segregated schools in North Carolina. Analysis of integration and expectation in relation to socioeconomic status, size of school, community orientation, knowledge of occupational education opportunities, and occupational preparation behavior revealed: (1) In integrated schools, white students have higher occupational expectation levels than nonwhite students except when socioeconomic status is low, the school is small, or social integration is high, (2) Whether white or nonwhite, segregated or integrated, urban students have higher expectations than rural students, (3) Level of occupational expectation is positively related to socioeconomic status for both white and nonwhite students, and (4) In segregated schools the expectation level of white and nonwhite students does not differ regardless of socioeconomic status. The results imply that the physical and social dimensions of integration as well as race of the student influence occupational expectations quite differently. Results also suggest a need for occupational education programs that would emphasize social integration as a means of raising expectation levels. (Author/SB)

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SCHOOL INTEGRATION, OCCUPATIONAL EXPECTATIONS AND OCCUPATIONAL EDUCATION: A STUDY OF NORTH CAROLINA HIGH SCHOOL BOYS

CHARLES E. LEWIS, JR.

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Center Research and Development Report No. 9

CENTER FOR OCCUPATIONAL EDUCATION
NORTH CAROLINA STATE UNIVERSITY AT RALEIGH
1969

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION—BUREAU OF RESEARCH
DIVISION OF COMPREHENSIVE AND VOCATIONAL EDUCATION RESEARCH
PROJECT NO. BR-7-0348, GRANT NO. OEG-2-7-070348-2698

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A STUDY OF NORTH CAROLINA HIGH SCHOOL BOYS

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CENTER RESEARCH AND DEVELOPMENT REPORT NO. 9

CENTER FOR OCCUPATIONAL EDUCATION
North Carolina State University at Raleigh

1969

Project No. Br-7-0348

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PREFACE

Sometimes in the course of its operation the Center for Occupational Education has the opportunity to see several of its functions represented in a single project. The present monograph provides an excellent example of this phenomenon.

Obviously, the primary function fulfilled by the publication of this monograph relates to research. Its presentation in the Center Research and Development Monograph Series insures that the study has met exacting standards of professional quality. The Monograph represents a substantial contribution to the research literature on occupational aspiration, and has widespread implications for the study of the effects of integration on student populations.

Not so obviously, the second function fulfilled through the publication of this monograph relates to training. We can reflect, with a note of pride, that the leadership and support made possible through the Center's program has helped contribute to the professional development of a new researcher in the field of occupational education.

Both the research and development and the training function are extremely important to the Center's program. Generally speaking, the research and development function carries the shorter term impact on the field of occupational education; the training function will have a long term affect on research in the field. In the case of this monograph, however, both effects are visible. The research reported in this monograph should be only the beginning of a career.

The Center wishes to express its appreciation to the many people responsible for the production of the monograph. Among these, Professor C. Paul Marsh, Dr. Glenn C. McCann, Mrs. Bessye Burwell, Mrs. Sue Mills, and Mr. J. K. Dane deserve individual recognition.

A special note of appreciation should be expressed to the professional personnel, all of North Carolina State University, who reviewed the monograph for publication by the Center:

Dr. Robert J. Dolan, Professor of Adult Education
Dr. Charles V. Mercer, Associate Professor of Sociology and Anthropology
Dr. Selz C. Mayo, Professor and Head, Department of Sociology and Anthropology
Dr. Charles H. Rogers, Associate Professor of Agricultural Education

The Center is indebted to these men for their insight and assistance.

John K. Coster
Director

ABSTRACT

LEWIS, CHARLES EDWARD, JR. School Integration, Occupational Expectations and Occupational Education: A Study of North Carolina High School Boys.

This study investigates the relationship between racial integration in secondary school systems and student's level of occupational expectation. Various levels of occupational expectation are assumed to result from socialization experiences in the physical and social environment of individuals. Integration, as one aspect of the environment, is perceived as having two dimensions -- physical and social -- that vary in intensity.

Integration, expectation, and the integration-expectation association are analyzed in relation to socioeconomic status, size of school, community orientation, knowledge of occupational education opportunities, and occupational preparation behavior. Differences in level of occupational expectation are explained in terms of race, and intensity and type of integration.

The data for the study were obtained from a sample, size 1,264, of high school male seniors in 84 schools, integrated and segregated, in North Carolina.

The analysis shows that in physically integrated schools white students have higher occupational expectation levels than nonwhite students except when socioeconomic status is low, the school is small, or social integration is high. In segregated schools the expectation level of white and nonwhite students does not differ regardless of socioeconomic status. Whether white or nonwhite, segregated or physically integrated, urban students have higher expectations than rural students.

In both segregated and physically integrated schools, social integration is positively related to occupational expectations within both racial groups. The association obtains regardless of socioeconomic status, school size, or community orientation. However, there is no association between physical integration and expectations.

Level of occupational expectation is positively related to socioeconomic status for both white and nonwhite students. Occupational expectation is also positively related to school size for white students, but not for nonwhite students.

For both white and nonwhite students, social integration and occupational expectation level are positively associated with knowledge of occupational education opportunities and occupational preparation behavior. However, physical integration is negatively associated with the knowledge and preparation variables.

The general assumption that white students have higher expectations than nonwhite students is unfounded in view of the findings of this study which indicate that there is no difference between the level of expectations of segregated white and segregated nonwhite students. However, the assumption is supported by the fact that within the group of integrated white and nonwhite students, and the group that includes both integrated and segregated students, white students have a higher occupational expectation level than the nonwhite students.

The results imply that the physical and social dimensions of the school integration phenomenon, as well as race of the student, influence occupational expectations quite differently. High occupational expectations are more prevalent among racial minority students in segregated schools than in physically integrated schools and an increased intensity of physical integration seems to lower expectations of the minority students. On the other hand, increased social integration seems to result in higher expectations regardless of physical integration, segregation, and race. Apparently, physical integration not accompanied by high social integration does little toward bringing occupational expectations of white and nonwhite students to the same level.

Results of the analysis suggest that need for occupational education programs in both integrated and segregated schools that would emphasize social integration as a means of raising expectation levels. Such programs are obviously appropriate for low expectation students since those students lack the means and motivation to seek traditional higher education. Also, it is precisely the low expectation level category of students that most urgently need to develop occupational skills in order to lead productive lives, especially the nonwhite students. The accent toward social integration and motivation of those students is apparently an endeavor that could best be accomplished by high school guidance personnel and vocational education teachers.

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INTRODUCTION

Background of the Problem

Upward social mobility is one of the major value orientations of American society, and it is generally accepted that occupational and educational achievement is the most common means of status achievement. The study of social mobility has received considerable attention in the past few decades and especially in the recent past the "war on poverty" has fostered a great deal of activity relevant to the relationship between the individual's occupation, his race, and his level of living. Particularly, as Kuvlesky (1966, p. 160) points out:

> . . .social scientists representing a variety of disciplines and public leaders at all levels are focusing an increasing amount of attention on the motivational and orientation factors involved in occupational mobility.

A basic assumption underlying existing motivational theory is that an individual's level of occupational aspiration influences his occupational and educational achievement. That is, the individual whose level of aspiration is high is more likely to attain a high level of education and a high status occupation than a person whose level of aspiration is low. The individual's learned desires and preferences for a particular occupational or educational status partially condition his choices and achievement.

Another fundamental assumption employed in current motivation research is that various levels of aspiration are determined largely by the interpersonal situations within which individuals are socialized (Haller and Butterworth, 1960). Socialization, the interactional process whereby norms, behavior patterns, and social-cultural qualities are learned, occurs throughout life. The results of this process - attitudes, knowledge, overt behavior - are dependent to a large extent on the social environment within which the individual was socialized. The school system may represent two unique types of social environment. One is the racially segregated school environment and the other is the racially integrated school environment. Within the segregated school racial groups are isolated and interaction with groups of students and teachers of diverse backgrounds is restricted. The integrated school affords possibilities for interaction between racially different groups of students. Thus the social setting in segregated and nonsegregated schools is obviously quite different in terms of possibilities for socialization, interpersonal relations, and behavior patterns. Those students who attend school in the different settings would be expected to demonstrate diverse motivation, knowledge, personalities, and distinct attitudes concerning opportunities and achievement, and varying overt behavior.

The Problem and Objectives

Partly in recognition of the differences in socialization opportunities, motivation potential, and actual achievement, public school integration versus school segregation has become a major concern of a large segment of American society. To date, there is only speculation about the effect that integration has had or will have on the individuals involved. School integration simply assures that students of all racial groups will have the same "in school" physical setting. However, the mere assurance of identical facilities does not guarantee identical products. In fact, little is known of the various possible effects of racial integration on the students involved.

The major emphasis in this study is the investigation of racial integration in the school system in terms of the following question. What effect does school integration have on students' occupational expectations? More precisely the questions to be answered in this regard are as follows: (1) Does the level of occupational expectation of white and nonwhite students differ in integration and segregated schools? (2) Does level of occupational expectation vary according to intensity and type (physical or social) of integration and race? (3) Are socioeconomic status, size of school, and community orientation associated with expectation level and in what manner do those variables affect the expectation-integration relationship? (4) Are knowledge of occupational education opportunities and occupational preparation behavior associated with school integration and expectation level?

Another question that this study investigates is answered by implications drawn from the research findings. The question is as follows: Is there a potential for changing students' expectations inherent in the secondary school system?

A final question with which this study is concerned can only be answered in the distant future. The question - what is the long range influence of integration and occupational expectations on occupational achievement - will be answered as future empirical research is conducted. The present study simply provides a beginning for the longitudinal research required to answer the question.

The first objective of the study is to provide a rationale and hypotheses that furnish tentative answers to the research questions. The rationale and hypotheses are developed from a background of general level of aspiration and level of expectation theory, emirical research findings, and the construction of a conceptual definition of school integration.

The second objective is to analyze the relationship between the intensity of racial integration in public high schools and the level of occupational expectation of white and nonwhite senior male students. A number of variables - socioeconomic status, size of school, community orientation, knowledge of occupational education opportunities, and occupational preparation behavior - theoretically related to the socialization process will be included in the analysis in order to better understand the potential effect school integration may have on occupational expectations.

As a third objective a conclusion will be drawn regarding the feasibility of high school administrators undertaking a program designed to raise the motivation of low expectation students in racially integrated school systems and to direct those students into educational endeavors consistent with the students' capabilities.

The final objective of the study is indirect and far reaching in that the data used herein and the findings of this study will be used to establish the bases for a longitudinal study of career progression or social mobility as that process relates to school integration and occupational expectations. To this end, a portion of the sample utilized in this initial investigation will be selected for an intensive future study as participants move through their work careers.

Significance of the Research

Since the occurence of racial integration in school systems is likely to increase, and the role of the school in preparing students for occupations is expected to become increasingly important as technology advances, it is imperative that additional knowledge concerning the effect of integration on expectations and achievement be obtained. Such knowledge could be utilized by the educational structure to maximize educational systems' efficiency in integrated situations and thereby enhance students' personal and social occupational capabilities. This study is an attempt to provide some of the needed answers to pertinent questions and to provide knowledge for decision making regarding programs in school systems. To that end, the study may prove to be worthwhile.

To date very little empirical research has centered on the relationship between school integration, expectations, and achievement. Therefore, the present investigation may be useful in future research dealing with related problems. Also, since this study will be utilized as the basis for a longitudinal research undertaking, later phases of the endeavor may contribute to the theory and understanding of social mobility.

THEORETICAL ORIENTATION

Introduction

The theoretical orientation of this study centers around two major concepts. The first concept, level of occupational expectation, is a derivative of the broader social-psychological concept, level of aspiration. Thus, an understanding of level of aspiration theory and its undergirding elements is fundamental to an understanding of the occupational expectation concept. The second major concept in the theoretical orientation of the research is school integration.

The purpose of this chapter is to present a theoretical orientation which will encompass both the conceptual development of the major variables and the rationale and hypotheses. The first section consists of a review of general level of aspiration theory and research. It is presented as a background for the second section within which the level of occupational expectation concept is developed and defined. Within the third section, the theoretical dimensions and definition of school integration concept are discussed. The rationale and hypothesis are presented in the final section of the chapter.

Background: Level of Aspiration Theory

During the late 1930's the concept "goals" and various aspects of goal-directed behavior became a significant focus of investigations utilizing motivation theory. As increased efforts were made to study goals *per se*, the concept "level of aspiration" came into being and has become a frequently used topic for researchers investigating various aspects of goal-setting behavior in several of the social science disciplines.

Hoppe (1930) and Dembo (1931), students of Kurt Lewin, first utilized the term "level of aspiration" in psychological literature. A central idea in their work is that the presence of a particular level of aspiration determined whether persons felt satisfied or dissatisfied with themselves after performance on a given task. Hoppe (1930) employed the concept in an empirical investigation in which he drew conclusions about an individual's level of aspiration based upon the person's spontaneous remarks concerning his reactions to various situations, the manner in which he worked at a given task, and his statements regarding success and failure.

By 1935 Frank had formulated and reported a quantitative technique for the experimental study of level of aspiration. In his technique, which became the standard for field work, the subject was informed of his performance score from the preceding trial on a simple task and was asked to indicate "how well he intended to do" on the next trial. Thus, an explicit level of aspiration was operationally defined by Frank (1935, p. 119) as ". . . the level of future performance in a familiar task which an individual explicitly undertakes to reach." It was assumed that reaching the goal constituted success and not reaching it meant failure.

One of the most pertinent theoretical developments concerning the level of aspiration was formulated by Kurt Lewin and three of his colleagues (Lewin, Dembo, Festinger, and Sears, 1944). From their theoretical perspective, level of aspiration is relevant only when one's perception includes a range of difficulty in attaining alternate goals and when there is a differentiation in valence among the goals along the range of difficulty. They contended that the level of aspiration of an individual was the level of difficulty having the highest positive valence, assuming that the sum of the subjective probability of success and the probability of failure equals one. Lewin and his colleagues stressed that the relationship between the individual's level of aspiration and his performance determined his subjective experience of success and failure when performance was perceived as self-accomplished.

In addition to the studies cited above, Gardner (1940), Rotter (1942), Irwin (1944), Ricciuti (1951), Festinger (1942), and Deutsch and Krauss (1965), among others, have contributed to the theoretical and methodological understanding of the level of aspiration as a widely used concept. In reviewing the literature two separate but closely related and integral dimensions become evident. Although expressed in various ways by different theoreticians, the dimensions are goal-setting and reality level.

Goal Setting

The Dictionary of Social Sciences states (Gould and Kolb, 1964, p. 387) that the ". . . level of aspiration denotes the goals or standards that an individual sets for himself." In the words of Merton (1957, p. 132), goals, and particularly cultural goals, are ". . . held out as legitimate objectives for all or for diversely located members of the society." Some of the cultural goals carry more value than others, and they involve various degrees of sentiment and significance. Nevertheless, the more common ones comprise the individual's "frame of aspirational reference." In essence, says Merton, goals are the "things worth striving for" (p. 133).

Two facets of the goal concept are particularly pertinent to the level of aspiration concept. First, a goal may be considered to be a special kind of object toward which a person has a favorable attitude. The attitude may vary toward the object conceived as a goal, but only in the degree to which the attitude is favorable. Second, a person may select one goal over another where there are alternative goals. Variation in the selection is dependent upon the degree to which the alternative goals are difficult to achieve (Lewin, 1964).

Anderson's (1940) study involving different types of goals and goal-attainment of young children demonstrated that the development of a level of aspiration, that is, the choosing of a goal of a particular degree of difficulty, assumes that several goals may be seen as subgoals within a broad goal structure. Also the study indicated that acts were perceived as part of a goal, and that a child both understands and accepts rules relating to achieving goals.

Travers (1963) took the position that one of the greatest influences in goal selection or the setting of a level of aspiration was a person's previous experience of success or failure. If an individual expected to perform at a certain level on a particular task, that is, to reach an expected goal, his success could be defined by whether or not he met or surpassed the expected level. Failure was the reverse. Since success and failure are reinforcing conditions in level of aspiration, they link it to motivational theory.

The result of an experiment by Gould and Lewis (1940) showed that the aspiration level could be greatly affected by the situation in which the subject found himself. General motives for avoiding failure and relieving tensions could be thought of as being strong determining factors in the subjects' behavior, the researchers suggested. They found that the establishment of high goals generally helped to avoid failure, but it also created tension in some subjects and the tension increased the possibility of failure. However, in an experimental situation which allowed subjects to utilize acceptable substitute goals, they avoided the tension created by a discrepancy between strivings for success and actual accomplishment, and they also avoided the possibility of failure brought about by high goal-setting.

Lewin (1964) suggested that the experience of success and failure occurs only in a relatively limited area of difficulties which is close to the boundary level of ability of the individual. In other words, the individual's past experience only partially determined his perception of the likelihood of future success. In general, however, research shows that level of aspiration tends to follow the level of performance of the individual either upward or downward depending on success or failure (Gould, 1939; Child and Whiting, 1949; Gardner, 1940; and Steisel and Cohen, 1951).

While Lewin partially agreed with the success-failure idea, he stressed the importance of certain group standards as influences on level of aspiration and stated that:

> From childhood on, the goals that an individual sets in his daily life and for his long-range plans are influenced by his ideology, by the group to which he belongs, and by a tendency to raise his level of aspiration to the upper limits of his ability.

Therefore, there are presumably important features in the "frame of reference" of the social environment within which one sets his aspiration level. Indeed, as Sherif (1936) indicated, the importance of the concept of a frame of reference lies in large part in the fact that it is the paradigm for the individual's internalization of the norms, values, and standards of his culture. Furthermore, reference scales are not derived solely from membership in a definitely structured social group, but may also reflect the influence of one's self-image, of other persons, or of groups that either establish certain standards for performance or that serve as models for evaluating self-performance.

Festinger (1942), studying undergraduates working on synonym lists and information tests, explored the effects of three different reference groups on estimates of level of aspiration. In addition to being told his score after each trial, each undergraduate was also told the average level of aspiration and average performance of one of three groups -- either high school students, college freshmen, or graduate students -- before making his own estimate for the subsequent trial. In general, the undergraduates raised their estimates when told they were scoring below the reference group, and they lowered their estimates when scoring above a group. Thus, there was a tendency to conform to the estimation level of the reference group.

In a 1940 study, Herzman and Festinger (1940) found that when subjects were told the aspirations and the performance of their own group, the general trend was to change subsequent estimates of level of aspiration in the direction of the group's estimate. The majority of the subjects shifted their explicit goals from their own previous estimates to those of the group estimates.

In addition to the studies described above, many other empirical investigations in the area of level of aspiration or expectation have been oriented toward the individual's goal-setting and his "self-concept," "ego-involvement," or "role-behavior" (MacIntosh, 1942; Anderson and Brandt, 1939; Frank, 1935; and Sears, 1941). Those studies are demonstrative of the effect that group involvement and group standards have in influencing goal-selection and are therefore very important to the theoretical aspects of the level of aspiration concept.

Reality Level

In their 1944 work, Lewin, *et al*., originally referred to a continuum of reality/irreality upon which the level of aspiration was based. An attitude that was out of contact with the preceding performance -- unrealistic attitude -- was seen to result (1) in a large discrepancy between a predicted and an achieved goal and (2) a higher level of aspiration, both of which were reflective of the *wishful* thinking accompanying goal-setting. On the other hand, a realistic attitude resulted in a small discrepancy score and a level of aspiration that was both flexible and responsive to a change in performance.

There is little question that both Dembo (1931) and Hoppe (1930, in their initial studies of level of aspiration, defined the concept with clear reference to the "hopes" of the individual. However, a different approach is frequently seen in more recent studies. Researchers often use questions that evoke responses concerning the individual's "expectations" rather than his "hopes" concerning future performances.

In relation to realism and the level of aspiration, Kurt Lewin (1948, p. 113) stated that:

> The goal of the individual includes his expectations for the future, his wishes, and his daydreams. Where the individual places his goals will be determined fundamentally by two factors, namely, by the individual's relations to certain values and by his sense of realism in regard to the probability of reaching the goal. The frames of reference which determine the values of success and failure vary considerably from individual to individual and from group to group. By and large, there is a tendency in our society to raise the level of aspiration toward the limit of the individual's ability. The principle of realism, on the other hand, tends to safeguard the individual against failure and to keep ambition down to earth. How high the individual can set his goal and still keep in touch with the reality level is one of the most important factors for his productivity and his morale.

Irwin (1944) has pointed out that level of aspiration involves both cognitive and affective factors and preferred to use the term expectation, except in cases where goals were clearly implied. Thus Irwin distinguished between realistic and unrealistic aspiration in terms of "expectations" and "goals." Realistic aspirations were seen as those aspirations based upon an appraisal of the extent to which the individual was capable of meeting the demands of the situation with which he was confronted. In this respect, realistic aspirations were seen as evoked by "expect" instructions for subjects. Conversely, unrealistic aspirations were viewed as those based upon hopes, fears, and wishes originating in the individual and evoked more directly by "hope" instructions.

The effect that instructions have on the resulting stated level of aspiration has been demonstrated in other empirical studies (Irwin and Mintzer, 1942; Preston and Bayton, 1942; Sears, 1940; and MacIntosh, 1942). The summarizing fact is that no clear pattern is apparent relative to the effectiveness of "expect" versus "hope" instructions. It is possible that a factor underlying the conflicting findings has been the extent to which the instruction was emphasized and reiterated throughout a study. Most studies merely asked the subjects for their _expectation_ _or_ _hope_, with no clarification of what the instructions mean. Hence, the variation "hope" versus "expect" instruction would seem to be an important methodological consideration in aspiration research.

Level of Occupational Expectation

The increasing quantity of occupational aspiration and expectation research described in sociological literature during the past decade graphically demonstrates the interest in this topic (Kuvlesky and Pelham, 1966; Kuvlesky and Lever, 1967; and Kuvlesky and Jacob, 1968). While most of the research on occupational aspirations and expectations consists of attempts to discover variables associated with the development of various levels of occupational goals and/or expected job attainment, some researchers have made significant contributions toward systematically adapting general aspiration theory to the problems of predicting occupational choice and achievement (Haller and Miller, 1963; Kuvlesky and Bealer, 1966). However, one of the major deficiencies of occupational aspiration-expectation research described in the literature is the inconsistency and variation in methodological and theoretical considerations on which the various studies are based.

Haller and Miller (1963) have attempted to solve many of the problems. In general, their work is concerned with the development and validation of a scale (OAS or Occupational Aspiration Scale) with which to measure occupational aspirations. To those researchers, level of occupational aspiration is defined as ". . . a special instance of level of aspiration and a type of attitude" (Haller and Miller, 1930, p. 30). They contend that level of occupational aspiration differs from general level of aspiration in that occupational aspiration takes as its object the occupational hierarchy and the continuum of difficulty consists of the various levels along the hierarchy. In the case of the OAS, North-Hatt prestige scores (North and Hatt, 1947) are used for operationalizing the continuum of difficulty of level of occupational aspiration.

The OAS designers further stress that a crucial element to be taken into account in eliciting a person's level of occupational aspiration is the "time dimension." Stimulus questions designed to elicit respondents' level of occupational aspirations must state a time in the individuals' work career so as to furnish a frame-of-reference for the respondent. The occupation that a person expects to have immediately following the completion of his education is probably different from the one he expects to have at retirement age.

The OAS also includes response statements which concern both the realistic (expect) and the idealistic (hope) expression levels. Thus, the OAS deals with the methodological problems most commonly seen in occupational aspiration research. In summary, the problems are (1) the continuum of difficulty dimension, (2) the time dimension, and (3) the reality dimension.

Haller and Miller take the position that the individual tends to adopt attitudes inculcated by the groups to which he belongs and that social and physical situations producing success or failure influence the individual's level of aspiration accordingly. They emphasize that individuals use groups of associates as reference points to evaluate their own behavior or as a standard toward which their behavior is directed. Level of aspiration, they suggest, may be interpreted in terms of the person's self-conception and in terms of his perception of himself in relation to appropriate styles of life. In general, most empirical investigators concur with the Haller and Miller ideas regarding the influence that group standards and other facets of the social and physical environment has on level of occupational aspiration or expectation.

Blau and his associates (1956), Stephenson (1957b), and Kuvlesky and Bealer (1966) seem to agree on most points with Haller and Miller (1963); however, the former group of researchers take the position that aspirations are more involved than most current research has recognized. They insist that occupational aspirations and expectations must be analytically and conceptually differentiated. Kuvlesky (1966, p. 166) states that:

> An aspiration usually refers to a person's, or grouping of persons', orientation toward a goal. In this sense, aspiration is a special form of the concept "attitude," which is commonly defined as a predisposition to behave toward a social object in a particular way: an orientation toward a social object. The distinction between the two concepts is that the object involved in an aspiration is a goal and therefore is more or less _desired_ by individuals; whereas an attitude may be positively _or_ negatively directed.

Thus, with regard to occupational aspiration, the social object involved is a goal which has variability, _e.g._, occupations with various levels of prestige. Expectations differ in that the object involved need not necessarily be wanted. If the object is not desired, it would not be a goal but rather an anticipated object. In this sense, occupational aspiration refers to a "wanted" goal (occupational status) and occupational expectation refers to an object (occupational status) that the individual feels he will actually attain whether he wants it or not.

Drabick (1963), Stephenson (1957a), and Cowhig, _et al_. (1960), report evidence to indicate that youths do distinguish aspirations from expectations and, that in terms of quality of occupations, there is an important difference between the occupation a person wants and the one he expects to get. Obviously, the expectation concept reflects a more realistic perspective on the part of an individual than the aspiration concept, and is the one that will be utilized in this research.[1]

Further, level of occupational expectation is defined in this study as the occupational status that a student expects to achieve at a stated time in his work career (an attitude toward an anticipated object). The occupational status is his selection from alternative occupations which are perceived to vary in terms of difficulty of attainment. The selection is determined by the individual's past personal experience of success or failure and by the standards of the group in which he was socialized.[2]

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[1] The concept level of occupational expectation is hereafter referred to as LOE.

School Integration

For the purpose of this study, school integration is defined as the process through which nonwhite and white students who were formerly enrolled in racially segregated school systems have been enrolled in a single system allowing physical and social interaction among students. The concept is divided into physical and social dimensions in order to meet certain theoretical and analytical specifications.

Physical integration is an existent state in which various proportions of students of two or more races are enrolled in the same school. Further, physical integration presents an opportunity or possibility for socialization between members of the different racial groups involved. A relatively equal proportion of members of a minority and a majority race in the same school might be perceived as a successful accomplishment by the minority group members if they had previously been restricted to segregated schools.

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[2] Young and Mack (1965, p. 480) define socialization as "The interactional process by which the individual learns the social-cultural qualities (habits, ideas, attitudes, and so on) that make him a member of society and hence a human being."

The social dimension of integration refers to various systems of interests, values, norms, beliefs, and symbols involving associations, groups, collectivities, and other interactive units. Emil Durkheim (1947) referred to this aspect of solidarity as "mechanical solidarity." To him, "mechanical solidarity" was characterized by a high degree of group sentiment and social restraint. Similarly, social integration is defined in this research as the process by which members of different races or members of the same race interact and/or communicate and involve themselves in social relationships that produce shared values, attitudes, and beliefs. A high intensity of interaction in terms of group participation, cohesiveness, and involvement among school classmates would be an indication of strong social integration and socialization. Social integration between members of various races is possible, but not assured in physically integrated situations; segregation prevents social integration between members of different racial groups.

Rationale and Hypotheses

School integration is an extremely important factor because the group of persons with which the student is socially and physically integrated is one of the prevailing influences that motivate the individual toward high or low expectations. Further, the individual's school experiences relate to his self-conceptions in terms of success or failure and these conceptions have motivation properties.

These ideas serve to point out a basic assumption on which public school segregation has been instigated. That is, integration in public education has broad and deep meaning for the general personality development of an individual. It is further assumed that groups of students that are set apart as "minorities" and are not allowed to interact informally and intimately on a daily basis with members of the "majority" have little chance to acquire the social skills, attitudes, and values that will enable them to move into the mainstream of American society with a feeling of equal opportunity to compete for cultural goals (Thayer and Levit, 1966).

The essence of this latter assumption flows from knowledge of the socialization process and suggests a chain reaction phenomenon: (1) interaction between students of various races result in (2) the learning of like skills, attitudes, values, and aspirations concerning opportunities for achievement and (3) these attitudes function as motivation which (4) directs energy into overt behavior. Hence, "cultural contact" or school integration would presumably place students of a racial minority in a social environment that provides motivation and associations enhancing higher levels of expectation. The determining factor in this process is obvious and elicits the question of whether or not social integration, as defined previously, does in fact function concurrently with physical integration.

The third fundamental assumption undergirding this rationale is that minority students enrolled in integrated schools have been in that social environment over a sufficient period of time for the socialization process to have occurred. That is, they have been in the integrated school long enough to have internalized the attitudes and values of the majority group.

A final assumption is, of course, that members of the majority group (whites) have higher expectations than members of the minority group (nonwhites) within segregated situations. This phenomenon has been empirically investigated and the evidence indicates support except where questions of methodology arise (Holloway and Berreman, 1959; Stephenson, 1957b; Gist and Bennett, 1963; Antonovsky and Lerner, 1959). Thus, it seems logical to postulate that (H_1) LOE of segregated white students is higher than LOE of segregated nonwhite students.[3]

On the other hand, if physical and social integration are concomitant and function in the assumed manner previously stated, it appears that where a high intensity of integration prevails the self-conception of inferiority would be partially erased for members of the minority racial group (Thayer and Levit, 1966). But more important, the minority members might perceive equal opportunities to achieve high status and, through socialization with members of the majority, they might acquire the attitudes, knowledge, and skills which would lead to a high level of expectation. Hence, it is hypothesized that (H_2) there is no difference between LOE of white and nonwhite students within the high (physical, social)[4] integration group.

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[3] See page 47 in the Methodology chapter concerning the statement of hypotheses in the "null," "alternative," and "directional" form.

[4] When intensity of physical integration and intensity of social integration or simply (physical, social) integration appear together in parenthesis within a stated hypothesis, the hypothesis will be tested separately relative to each integration dimension.

Conversely, in situations of a low intensity of integration where socialization between persons of different races would be limited, white students would be expected to have higher expectations than the nonwhite students. From this reasoning it is hypothesized that (H_3) *white students have higher expectations than nonwhite students within the low (physical, social) integration group*.

Social integration has been analytically and theoretically differentiated from physical integration because the two phenomena have different functions and may operate independently of each other. Social integration may occur within any homogeneous racial group as well as within a heterogeneous racial group. Thus, regardless of the intensity of physical integration or race of the individuals concerned, there should be a positive correlation between LOE and social integration. Assuming that this is the case, it is hypothesized that (H_4) *there is positive relationship between LOE and social integration within both the white and nonwhite groups*.

Theoretically, physical integration should not affect expectations of white students in the same manner that it affects nonwhite students. While for the nonwhite students a highly physically integrated situation would probably present an environment in which a great proportion of the student peers were from the higher strata than normally encountered in a segregated environment, the opposite might be true for white students. That is, white students would probably be associated with more low strata peers in a highly integrated school situation than in a segregated school (Young and Mack, 1965). Assuming that this is the case and that the higher strata manifest high expectations, it is hypothesized that (H_5) *there is a positive relationship between LOE and physical integration within the nonwhite group*. However, (H_6) *there is no relationship between LOE and physical integration within the white group*.

Reasoning along the same lines, it is further hypothesized that (H_7) *there is no difference between LOE of segregated and physically integrated students within the white group*. But for nonwhite students the intensity of integration is assumed to be of major importance and the expectations of those students is assumed to fluctuate dependent on that intensity. Hence, it is postulated that (H_8) *there is a difference between LOE of segregated and high physically integrated students within the nonwhite group*. And conversely, (H_9) *there is no difference between LOE of segregated and low physically integrated nonwhite students*.

Socioeconomic Status, Size of School, and Community Orientation

A focal point in motivation theory and research is that level of aspiration is interpreted in the context of the socialization influences in the social and cultural environment. Three facets of the social environment that have potential application regarding socialization in the high school setting are (1) students' socioeconomic status, (2) the size of the school they attend, and (3) the students' community orientation (either rural or urban).

The importance of social class or socioeconomic status in open class systems is seen in what has been termed life opportunities or life chances. Young and Mack (1965, p. 172) states that, "A person's class status, with its concomitant income, education, and style of life, affects greatly the likelihood that certain things will happen to him." Bogart (1956) investigated the social participation patterns of the various strata and concluded that vast differences exist. As would be expected the lower class reads and travels less than the upper classes, but spends more time listening to the radio, viewing television, and going to the movies. And, in general, persons of a particular status associate with other persons of the same status.

Perhaps for the present problem, the most significant differences in the social classes is seen in their attitudes and values. These differences relate to patterns of striving, feelings toward economic security, educational achievement, outlook on spending versus saving, and in aspirations generally (Bertrand, 1967). Studies conducted by several researchers (Kaldor, *et al*., 1962; Haller, 1960; Slocum and Empey, 1956) confirm the influence of socioeconomic status on occupational expectations. That is, the usual finding is that there is a direct relationship between the two variables. Hence, it is hypothesized that (H_{10}) *there is a positive relationship between LOE and socioeconomic status*.

Since learning is conditioned by the observations of behavior of others in a social setting, it follows that the individual who has a large number of classmates to interact with would learn more about occupations than the person who has few classmates. Knowing more about occupations in terms of requirements and attributes needed to enter a wide range of occupations would presumably lead to a perception of greater occupational opportunities and hence to higher expectations.

It is accepted that larger schools offer greater opportunities for learning than smaller schools (Thayer and Levit, 1966). Among the conditions in some small schools that restrict opportunities are (1) the lack of guidance personnel, (2) limited library facilities, and (3) a narrow and restricted curriculum. Also, teachers in small schools may have to teach a variety of courses rather than specialize in a single subject matter area (Rogers, 1960). Hence, it is logical that a greater amount of information would be available in large schools and that such an environment would be more conducive to maximizing students' knowledge. Within this frame of reference, it is hypothesized that (H_{11}) there is a positive relationship between LOE and size of school.

Quite frequently the physical location in which an individual has been reared will influence his occupational expectations. For example Payne (1956) found that urban boys were much more likely than rural boys to expect occupations at levels above their fathers' occupations. In a study of female high school students, the conclusion reached was that most urban girls expected low professional jobs and most rural girls expected blue-collar positions (Kuvlesky and Lever, 1967). In another study in which differences between mill-village and city children's occupational aspirations were found, the researcher commented that, "Although mill children learn to want more schooling and better jobs than their parents have, the mill-village setting does not provide them with sufficient financial resources, background, and motivation to fulfill their ambitions" (Morland, 1960, p. 175).

The physical location in which individuals are located has still another motivating influence. The community may not be one in which the individual hears of occupational alternatives, or if he does, he may see little opportunity for career progression because of his lack of prior success in education and in other occupations (Chinoy, 1952). That is, he may have a low estimation of his own ability to participate in those occupations that he hears about. In other words, his self-image is one of a low achiever. Thus it is logical to postulate that (H12) there is a difference between LOE of rural and urban students.

In the previous discussions concerning socioeconomic status, size of school, and community orientation, the assumption was that level of occupational expectation varies with those variables in much the same manner as it does with integration. In fact, the essence of the matter is that socioeconomic status, size of school, and community orientation are perceived to be contingent conditions under which integration might contribute to a higher occupational expectation level.

It is logical to assume that the level of expectation of persons from the high socioeconomic status, who are enrolled in a large school, or who have an urban community orientation would be higher than their counterparts - persons from the low socioeconomic status, from small schools, or who have a rural community orientation. The former group is less isolated in terms of number of possible associates and in terms of the type of associates with whom they may interact and by whom they may be socialized. Also, members of the high socioeconomic status group are more likely to hear about opportunities relevant to their educational and occupational future than are their low status counterparts. It is further reasonable that the conditions of higher status, a broad group of associates, less isolation, and greater knowledge of opportunities would tend to negate the effect that being nonwhite presumably has on the expectations of minority group members.

It is therefore hypothesized that (H_{13}) there is no difference between LOE of (physically integrated, segregated)[5] white and nonwhite students within the (high socioeconomic status, large school, urban oriented)[6] group. However, considering the potential effect of low socioeconomic status, small school environment, and rural orientation in addition to being a member of the nonwhite race, it is logical to postulate that (H_{14}) there is a difference between LOE of (physically integrated, segregated) white and nonwhite students within the (low socioeconomic status, small school, rural oriented) group.

In an earlier section a rationale concerning the relationship between LOE and integration was developed (hypotheses 4, 5, and 6). The direction of association or lack of association between integration and expectation was assumed to be dependent on the race of the individual, on the type of integration, i.e., physical or social - and on the intensity of integration. In view of the potential effect of high socioeconomic status, large school size, or urban orientation, it is logical that the race and integration effect would be reduced to the extent that (H_{15}) there is a positive relationship between LOE and (physical, social) integration within the (high socioeconomic status, large school, urban oriented) group. Likewise, logic suggests that the effect of low socioeconomic status, small school size, and rural community orientation would overshadow the race and integration intensity effect on LOE and would result in low expectations. It follows that (H_{16}) there is a negative relationship between LOE and (physical, social) integration within the (low socioeconomic status, small school, rural oriented) group.

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[5] Hypotheses of this type will be tested separately for the physically integrated and the segregated groups.

[6] Hypotheses of this type will be tested separately relative to socioeconomic status, size of school, and community orientation.

Knowledge of Occupational Education Opportunities

The previous discussion of socialization, reference groups, and other dimensions of the social setting rests on the assumption that the social environment is important because of its function as a learning situation. Persons who are in a social setting conducive to learning about occupations logically should have a wider knowledge of occupational education opportunities than persons who are in a more restrictive socialization situation. For example, persons functioning within a narrow socialization base might learn about only one or two types of occupational education programs, which they perceive as within the range of their capabilities; whereas persons that function in a broad socialization base would be likely to learn about many educational possibilities and opportunities in which they might participate. Hence the individuals in the broad base socialization situation would have more knowledge about such matters as: (1) the type of education and/or training required to enter certain occupational fields; (2) the location of occupational education facilities; (3) the enrollment cost of various occupational education programs; and (4) the length of time required to complete certain programs.

Furthermore, the increased knowledge should lead to higher expectations because within the greater number of realized occupational education opportunities, there is a greater chance that some would be considered "more appropriate" for a particular individual. If the student is aware of several educational opportunities that he considers appropriate for himself, he would be likely to select the best of the alternatives he could realistically expect to attain. Thus, it is postulated that (H_{17}) there is a positive relationship between LOE and knowledge of occupational education opportunities.

The integrated school is presumed to furnish the "broad base socialization situation" described above. Hence, it is expected that students in integrated schools will know more about occupational education possibilities than students in segregated schools. This idea is particularly relevant to nonwhite students because in the past their parents have been restricted from many occupational areas, and, as previously pointed out, a basic assumption in this study is that members of the nonwhite minority group have been isolated in many respects. The specific hypothesis generated from this discussion is that (H_{18}) there is a positive relationship between (physical, social) integration and knowledge of occupational education opportunities.

Occupational Preparation Behavior

Aspiration theory points out that goals may be seen to have both a short-term and a long-term dimension with regard to when the final goal will be accomplished. Also, there may be major goals and subgoals. Frequently, in order to accomplish the major goals planned for the distant future, many subgoals that are prerequisites for accomplishment of the major goals must be achieved in relatively short-term spans of time. The term "occupational planning" has been used to indicate the process of consciously planning and successively accomplishing short-term subgoals in order to eventually reach a final occupational objective (Haller and Miller, 1963; Cowhig, *et al.*, 1960).

In this frame of reference it is reasonable that certain choices and behaviors that the student manifests may be viewed as occupational preparations. For example, seeking all possible information from a guidance counselor or simply attaining relatively high grades in school might be construed as preparing for an occupation. Further, one might construe that students who sincerely expect to become employed in a particular occupation would exert an effort to orient their education in a manner calculated to enhance the possibilities of obtaining that occupation. This would occur only if the student strongly expected the occupation. In cases where the individual did not really expect to achieve the occupation, he would not be likely to do much in the way of preparing for it. It follows that, (H_{19}) *there is a positive relationship between LOE and occupational preparation behavior*.

Since occupational expectations are expected to be positively related to integration and its socialization advantages, it is reasonable that both white and nonwhite students in integrated schools would demonstrate a higher level of occupational preparation behavior than students that are segregated; *i.e.*, school integration should lead to more meaningful behavior in terms of preparing for an occupation. Hence, the hypothesis is that (H_{20}) *there is a positive relationship between (physical, social) integration and occupational preparation behavior*.

METHODOLOGY

Source of Data

The population under study in this research was drawn from the high school male seniors in North Carolina public schools. The variables included in the hypotheses to be tested required the use of a rather large sample. Necessarily the sample included both the white and nonwhite races, students from various sizes of schools, both rural and urban students, students from all socioeconomic classes, and students from highly integrated as well as totally segregated schools. Hence, in order to include these characteristics in the sample and to make generalizations regarding all North Carolina high school male seniors, a large sample was necessary.

One of the most critical problems in the sample design was that of attempting to insure representativeness with respect to intensity of physical integration and size of senior class. It was anticipated that the universe was very heterogeneous regarding these variables and complete enumeration of high school seniors would probably be uneconomical. Thus, a "stratified random cluster" sample method was necessary. The procedure involved the following steps.

1. The number of seniors, both male and female, in each high school in the state was converted into "homeroom grouping" or "clusters of students" of approximately thirty students, representing the typical high school senior homeroom group. Each "cluster" was assigned a number and in this and the steps that follow, identification was maintained between

the various homeroom groups or "clusters" and the school that the cluster represented.

2. All clusters were stratified by size of the school from which the cluster was formed and by the percentage of nonwhite students enrolled in the senior class of the respective school.
3. A random sample of cluster numbers was drawn and those cluster numbers indicated which schools would be included in the sample and how many homerooms or clusters from each of the selected schools would be included in the final sample.
4. The one or two homerooms - clusters - within each selected school were randomly selected from all the homerooms in that school.
5. All of the male students assigned to the selected homerooms comprised the sample.[7]

Hence, the number of respondents selected from each strata or subgroup (school size and percentage of nonwhite students) was proportionate to the number which that particular subgroup contributed to the total population, and the principles of proportionality and randomness were upheld. The final sample, consisting of 1262 respondents from 90 homerooms in 84 of the 589 high schools in North Carolina, involved complete enumeration of all male senior students in some schools and only a relatively small percentage of students in other schools. The location of the various schools in which respondents were enrolled may be seen in Figure 1.

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[7] Assistance in developing the sampling frame was rendered by Dr. Charles H. Proctor, Department of Experimental Statistics at North Carolina State University at Raleigh. The North Carolina Department of Public Instruction furnished data concerning frequency distribution of students enrolled in North Carolina schools by race and by number of seniors.

Data for the analysis were gathered through the use of a group administered, pre-coded, self-completion questionnaire. Both open-ended and structured response questions were included in the instrument. A copy of the questionnaire appears in Appendix A.[8]

A pretest of the questionnaire was conducted in three schools and involved a total of 56 students. Two of the schools were segregated -- one all white and the other all nonwhite. The third school was physically integrated and there were 13 nonwhite and 15 white students from that school who completed the questionnaire. Following the pretest, the responses were analyzed and several changes were made in the instrument.

The Variables and Their Measurement

The design of the study required the measurement of the level of occupational expectation (LOE) of each respondent, the major dependent variable, and the intensity of physical integration (IPI)[9] and intensity of social integration (ISI) in his school, the independent variables. Portions of the analysis involving either the knowledge of

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[8] Only selected data obtained with the instrument were analyzed in the present study.

[9] Intensity of physical integration, intensity of social integration, socioeconomic status, knowledge of educational opportunities, and occupational preparation behavior will hereafter be referred to as IPI, ISI, SES, KOEO, and OPB, respectively.

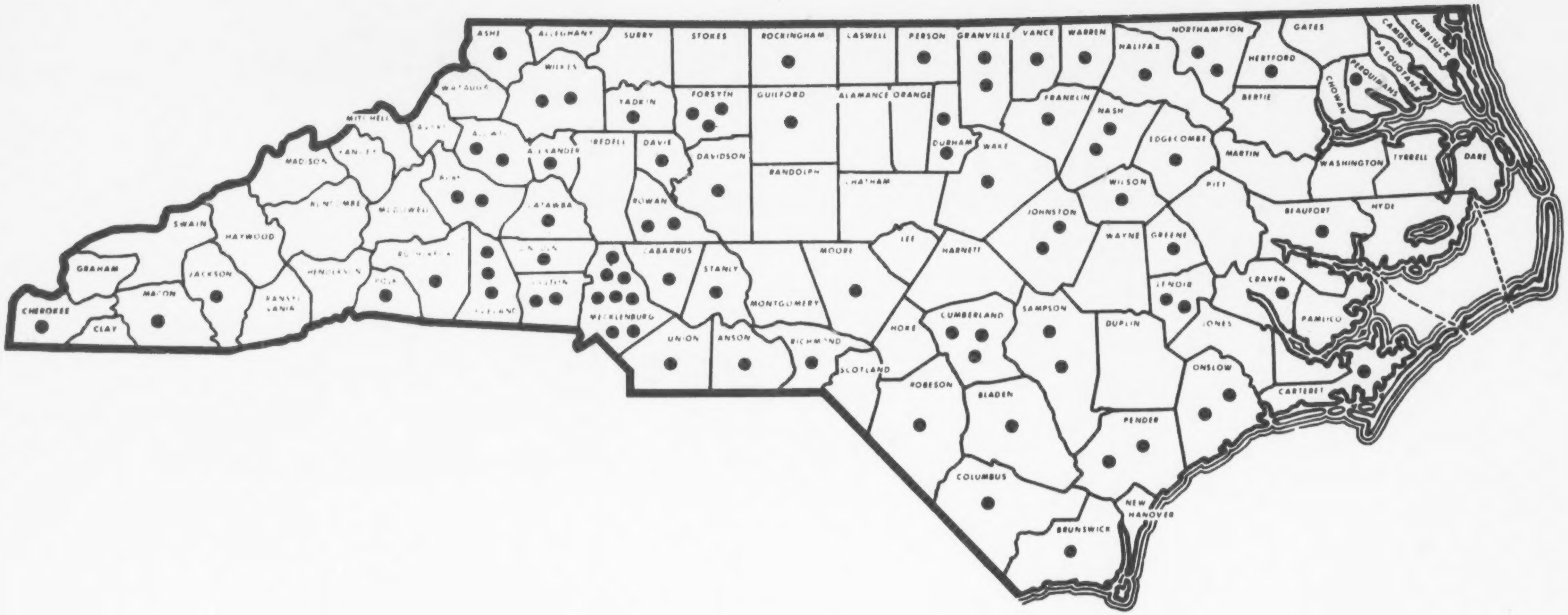
ASHE
ALLEGHANY
SURRY
STOKES
ROCKINGHAM
CASWELL
PERSON
GRANVILLE
VANCE
WARREN
HALIFAX
NORTHAMPTON
GATES
HERTFORD
CAMDEN
CURRITUCK
PASQUOTANK
PERQUIMANS
CHOWAN
BERTIE
WATAUGA
WILKES
YADKIN
FORSYTH
GUILFORD
ALAMANCE
ORANGE
DURHAM
FRANKLIN
NASH
EDGECOMBE
MARTIN
WASHINGTON
TYRRELL
DARE
MITCHELL
YANCEY
AVERY
CALDWELL
ALEXANDER
IREDELL
DAVIE
DAVIDSON
RANDOLPH
CHATHAM
WAKE
WILSON
PITT
MADISON
BUNCOMBE
McDOWELL
BURKE
CATAWBA
ROWAN
JOHNSTON
BEAUFORT
HYDE
SWAIN
HAYWOOD
LINCOLN
CABARRUS
STANLY
MOORE
LEE
HARNETT
WAYNE
GREENE
GRAHAM
JACKSON
HENDERSON
RUTHERFORD
POLK
GASTON
CLEVELAND
MECKLENBURG
MONTGOMERY
LENOIR
CRAVEN
PAMLICO
CHEROKEE
MACON
CLAY
TRANSYLVANIA
UNION
ANSON
RICHMOND
HOKE
CUMBERLAND
SAMPSON
DUPLIN
JONES
SCOTLAND
ROBESON
BLADEN
ONSLOW
CARTERET
PENDER
COLUMBUS
NEW HANOVER
BRUNSWICK

Figure 1. Location of Schools from Which Respondents Were Selected

occupational education opportunities (KOEO) variable, or the occupational preparation behavior (OPB) variable with LOE, KOEO, and OPB were utilized as independent variables as were the variables socioeconomic status (SES), size of school, community orientation, and race. However, in the portion of the analysis dealing with the association between KOEO, OPB, and the integration variables, the former (KOEO and OPB) were handled as dependent variables and the latter (ISI and IPI) as independent variables.

Socioeconomic status, school size, community orientation, and race were used primarily as intervening variables to elaborate the relationship between LOE and integration. More specifically, the intervening variables were utilized in order that the variables ISI and IPI could be analyzed in terms of the conditions (contingent conditions) under which they may contribute to high LOE. Appendix B shows the variables used in various hypotheses and the manner in which they were treated, *i.e.*, as interval, ordinal, or nominal data.

Level of Occupational Expectation

The dependent variable in this study is level of occupational expectation. Operationally defined, level of occupational expectation is the prestige level of the occupation that a student indicated he actually expects to become engaged in one year after he has finished high school or has completed any occupational education or general education program in which he expects to participate. North-Hatt occupational prestige scores were used to rate the prestige levels of the occupations that respondents stated they expected to attain (North and Hatt, 1947). (See question number 12 in Appendix B.)

Two contingencies had to be covered in order to maintain the integrity of the data accumulated through this question. First, all students should have the same "time perspective" for their respective expected occupation. This was desired since the occupation a student hoped to achieve in one year would likely be quite different from his perception of his occupational achievement in five, ten, or more years. Second, it was realized that many of the students would still be engaged in educational pursuits one year from the time the questionnaire was administered since the sample was designed to include respondents who planned to participate in educational programs ranging from relatively short-time vocational-technical programs to postcollege programs, as well as those who did not plan for additional formal education beyond high school. Therefore, educational contingencies were included to cover all possibilities. The frequency distribution of the occupational expectation scores are shown in Appendix Table 1. The range of the score extends from a low of 23 to a high of 93 and the mean is 67.85.

Since it was necessary in certain phases of the analysis to treat the LOE ordinal data as nominal categories, five groups of responses were established. The range of the very low category was 23 to 59, with 276 respondents having scores which placed them in that group. There were 254 respondents in the low category which had an upper limit of 65. Two hundred and twenty-five students were in the mdeium category which ranged from 66 to 70. The range of the high category was 71 to 78, with 229 respondents in that group. The very high category, scores 79 to 93, contained 270 respondents. Some examples of frequently named occupations within each category are as follows: very low -- farm laborer, filling station attendant, clothes presser; low -- brick mason, barber, textile worker (semiskill); medium -- automobile salesman, foreman in factory, policeman; high -- school teacher, social worker, manager of small business; very high -- attorney, physician, nuclear engineer.

Intensity of Physical Integration

The major independent variable, intensity of physical integration, is operationally defined as the proportion of total students in the senior class of a particular high school classified as nonwhite. Each respondent was assigned a physical integration score based on the percentage of his classmates who were nonwhite. For example, a student in a school in which twenty percent of the senior class members were nonwhite would have a physical integration score of twenty regardless of whether the student were white or nonwhite.

Of the 1262 respondents, 923 (73.1 percent) were from integrated schools and the average physical integration score in all 56 integrated schools from which respondents were drawn was 13.67.

The frequency distribution of the integration scores is presented in Appendix Table 2. In most phases of the analysis physical integration scores were utilized as ordinal data; however, in order to utilize integration as a control variable in some cases, the data were transformed to nominal measures by establishing three categories. There were 278 respondents who had physical integration scores in the low category, with a range from 1 to 5. Within the medium category, which ranged from 6 to 17, there were 321 respondents. The high category, from 18 to 63, contained 325 students.

In addition to the integration categories just described, two additional groups of students were included in the study. One group was made up of the nonintegrated or segregated white students, which included 104 respondents. The other, nonintegrated, or segregated, nonwhite group consisted of 235 respondents.

Intensity of Social Integration

Intensity of social integration, another dimension of the independent variable, refers to the degree of social interaction between or among classmates in terms of cohesiveness and involvement of group members. As used in this study, the intensity of social integration is indicated by the intensity of participation in social organizations and associations in the high school environment.

A modified version of the social participation scale developed by F. Stuart Chapin was utilized to measure the variable (Chapin, 1955). Organizations included were those most often found in the high schools used in the pretest. Also, respondents could add other organizations not specifically listed in the question. (See question 33 in Appendix A.) Total scores were computed for respondents by summing their weighted scores for each activity or organization on the basis of membership (each organization, 1 point), attendance at meetings (each organization, 2 points), and office holding or committee service (each organization, 3 points) (Miller, 1967, pp. 208-212).

Appendix Table 3 shows the frequency distribution of the social integration variable scores and the three categories established within the frequency distribution. The low integration category included the 492 students who had scores which ranged from 0 to 3. There were 451 respondents in the medium level group, ranging from 4 to 12. The high group ranged from 13 to 78; however, only about 25 percent of the 319 respondents in that group had scores above 30.

Race

In the present research, 433 or 34.4 percent of the respondents were nonwhite. Among these, 235 were from segregated schools, and 198 attended physically integrated schools. Of the 829 white participants in the study, 104 were enrolled in segregated schools and 725 were enrolled in physically integrated schools. The nonwhite category consisted primarily of Negroes. However, the nonwhite sample did contain some members of other "racial" groups.

As a means of ascertaining and recording each respondent's race, students were asked to personally hand in their questionnaires to the interviewer after it had been completed. As this was done, the interviewer made a visual determination concerning the participant's race and the decision was recorded on the instrument. It was necessary to use this method since some school superintendents objected to having students answer any questions regarding their race.

Socioeconomic Status

This variable is the social class position of an individual and reflects his level of living or style of life. It is important because it strongly influences an individual's chances and opportunities regarding education, income, occupation, marriage, associations, and other physical and social facts of life.

SES is measured in this research by means of the North-Hatt occupational prestige score of the head of the household in which the respondent resides. (See question 6 in Appendix A.) The method is particularly useful in survey research of this nature as the necessary data may be elicited from children as well as adults, and the interview need not take place in the respondents' home (Miller, 1967, pp. 106-107).

These ordinal data, in the form of SES scores, are shown in Appendix Table 4. The lowest score in the range was 35 and the highest score was 93. The mean of the distribution was 59.72 and the standard deviation was 10.90. The low category ranged from 35 to 53, with 424 respondents in that group. The medium SES category (54 to 65) contained 457 respondents. The high category included 381 respondents.

Size of School

Size of school was operationally defined as the actual number of students, male and female, enrolled in the senior high school class of which the respondent was a member. This method was used because some of the schools in the sample included grades 1 through 12, while others were senior high schools that included only grades 10 through 12; therefore, the entire school enrollment could not be used as the basis for determining school size. School size in North Carolina is extremely variable, and frequently senior high schools have larger enrollments than schools that include all 12 grades.

The frequency distribution of the size of school are shown in Appendix Table 5. The mean size was 211.1 students per high school senior class, and the range extended from 22 to 629. In the small size category there were 460 respondents, 373 respondents in the medium category; and, 429 in the large category. The range of the categories was 22 to 129, (small) 130 to 239, (medium) and 240 to 629, (large) respectively.

Community Orientation

This nominal variable is defined as the type of community, either rural or urban, in which an individual has spent the greater part of his life. The type of community was determined by responses to the statement, "Please indicate the number of years during your lifetime that you have lived in any of the following types of communities." The alternative responses were, (a) on a farm, (b) in the country, but not on a farm, (c) in a town with less than 2,500 people, (d) in a city with less than 7,500 people, and (e) in a large city with more than 7,500 people. (See question 2 in Appendix B.) Respondents that indicated a greater number of years in the sum of (a), (b), and (c) than in the sum of (e) and (f) were classified as persons with a rural orientation; the remaining respondents were classified as urban. This method was used because it is suitable for the North Carolina situation where there are many small towns whose residents are oriented to the surrounding rural areas. There were 736 respondents (58.5 percent) who had a rural orientation and 523 (41.5 percent) who had an urban orientation. Three persons did not respond to the question.

Knowledge of Occupational Education Opportunities

The knowledge variable refers to a person's awareness of and understanding of certain possibilities and opportunities in occupational education. The specific occupational knowledge concerned with in this study was the individual's acquaintance with certain educational institutions that have technical and vocational education programs as their focus and with the programs offered in those educational institutions.

For the purpose of analysis, three different aspects of the knowledge variable were utilized. First, students were asked if they were familiar with the term "Community College," "Industrial Educational Center," or "Technical Institute," and if they were familiar with one of these educational establishments, to indicate its name. (See questions 23 and 25 in Appendix A.) There were 104 participants who either did not respond or responded "no" to the question. Those responses were placed in the "low knowledge" category. The next category, "medium knowledge," included the 121 respondents that answered "yes" to the question but could not correctly name one of the specified educational institutions. The final category, "high knowledge," consisted of the 1037 students who correctly named one of the Community Colleges, Technical Institutes, or Industrial Education Centers in North Carolina.

The second knowledge of occupational education opportunity factor also dealt with knowledge of vocational education institutions. The question was asked, "Are you familiar with any trade, technical, business, or other types of vocational training schools?" And, if you are familiar with one of these schools, "What is the name of the school?"

(Question 27, Appendix A.) To this question, there were 672 whose responses placed them in the "low knowledge" category; 84 students were placed in the "medium knowledge" category; and 506 correctly named vocational schools and were assigned the "high knowledge" category.

The final knowledge variable concerned the student's understanding of the programs offered at the various educational institutions that he had been asked about in the two previous questions. The specific question was as follows: "If you answered 'yes' to question 23, 25, and/or 27 (the previous questions), name some of the courses of study, training programs, or curriculums offered at the school you named."[10] Of the 1262 respondents, 615 made no response and were classified "low knowledge." Three hundred forty-nine named one or two courses and were placed in the "medium knowledge" category. There were 298 students who made more than two responses and these were assigned to the "high knowledge" category.

Each of the "knowledge categories" utilized in the knowledge of occupational education opportunities dimensions described above was assigned a numerical value in order that the responses could be analyzed as ordinal data. The assigned values are shown in Appendix Table 6.

In the analysis that follows, these variables will be designated KOEO-1, KOEO-2, and KOEO-3, respectively, as they have been discussed in the previous paragraphs.

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[10] The interviewer announced that each respondent should name all of the programs that he had heard about.

Occupational Preparation Behavior

The final intervening variable is occupational preparation behavior (OPB). The concept is defined as the overt behavior and attitudes manifested by an individual relative to directly or indirectly preparing for a future occupation. The variable is multidimensional in that it has several measurable facets. The three dimensions that are included in the following analysis are expected educational attainment (OPB-1), high school lettergrade average (OPB-2), and contacts with a guidance counselor (OPB-3).

When asked how far they really expected to go in school (question 20, Appendix A), 191 of the respondents indicated that they did not expect any formal education beyond high school. Four students planned to stop now and 1 student made no response. Those respondents were placed in the "low preparation" category. Five hundred ten of the students responded that they expected to graduate from a 2-year college, or complete some type of business, technical, or other vocational program after high school and were assigned to the "medium preparation" category. There were 556 students who expected 4 or more years of college. These respondents were assigned to the "high preparation" category.

With regard to OPB-2, students' average lettergrade for all high school work was taken as a measure of level of preparation (question 36, Appendix A). In the "very high preparation" level there were 53 respondents. Those were students who stated that their average high school lettergrade was A. There were 369 respondents in the "high preparation" category with a lettergrade average of B. The 653 students with a C average placed in the "medium preparation category" and the 81 D average students were assigned to the "low preparation" category. The 106 respondents who stated that they did not know their lettergrade were placed in the "very low preparation" category.

The final measure of preparation (OPB-3) dealt with the number of contacts that the students had had with the high school counselor. Those who had never made a contact or who had made only one contact were placed in the "low preparation" category. There were 405 respondents in that group. There were 462 respondents who had made 2 or 3 contacts and they were assigned to the "medium preparation" category. The "high preparation" category was made up of persons who had made 4 or more contacts. The group contained 399 respondents. (See question 37 in Appendix A.)

Numerical values were assigned to the categories to aid in data analysis as in the preceding section. The frequency distribution of responses and assigned category values are shown in Appendix Table 7.

Statistical Methods of Analysis

The preceding section indicates that the operationalization of the variables to be utilized in the analysis generally involve two levels of measurement, *i.e.*, nominal and ordinal scales. The one interval scale utilized concerns IPI data. The index and corresponding level of measurement for each of the variables is as follows:

	Variable	Index	Level of Measurement
1.	Level of occupational expectation	North-Hatt prestige scores	Ordinal scale
2.	Intensity of physical integration	Percentage of Negroes enrolled in senior class	Interval scale
3.	Intensity of social integration	Organizational participation scores	Ordinal scale
4.	Race	Judgmental classification	Nominal scale
5.	Number of classmates	Numerical value reported by school principal	Ordinal scale
6.	Community orientation	Majority of years spent in a rural or suburban community	Nominal scale
7.	Socioeconomic status	North-Hatt prestige scores (head of household)	Ordinal
8.	Knowledge of occupational education opportunities	Direct item responses (3 items)	Ordinal scale
9.	Occupational education preparation	Direct item responses (3 items)	Ordinal

Statistical techniques employed in the analysis were selected on the basis of the level of measurement of data that the variables yielded (Blalock, 1960).[11] Directional hypotheses were stated for relationships involving two ordinal data variables, _i.e._, variables in which the elements or observations are ranked in a graded order. These hypotheses were tested by means of the Kendall's tau (T) technique (Siegel, 1956; Hamilton, 1960). The .05 level of probability was chosen as the criterion for determining if the correlation differs from 0. The Kendall's tau technique, a one-tail test, provides a method of comparing two ordinal variables in terms of all pairs of observations which have either the same or different orders on the two scales.

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[11] Appendix B lists the variables utilized in each hypothesis and the statistical technique employed in the test of the hypothesis.

As explained by Hamilton (1960), the range is graded between +1.00, indicating perfect positive association, and -1.00, indicating perfect negative association. If all pairs of observations had the same order on the two scales, T would be +1.00; conversely, if all pairs had opposite orders, T would be -1.00; but if an equal number of pairs had the same and different orders, T would be zero. Hence, T is the difference between two proportions.

Hypotheses involving two nominal data variables were tested by means of the chi square (X^2) test of independence (Li, 1957). Null hypotheses were tested at the .05 probability level. In some instances inspection of data in the respective Appendix Tables was necessary in order to make a final decision about the rejection of a stated hypothesis.[12]

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[12] A combination of "null," "alternative," and "directional" hypotheses were stated in the Rationale and Hypotheses section of the theoretical orientation chapter in order to more clearly convey the logic behind the various hypotheses, however, the "null" form was "tested" in all instances involving the chi square technique and the "directional" form was used in instances involving the tau technique.

In cases where it was desirable to test hypotheses involving a nominal variable and an ordinal variable, the ordinal variable was transformed into three categories, thus resulting in nominal data. Hypotheses of this type were tested by means of the chi square.

Throughout the analysis, both ordinal and nominal variables were used for control purposes. When this was done, the three categories of the ordinal variables were used as the control factors.

PRESENTATION OF DATA

Analysis of the Relationship Between LOE, IPI, and ISI

Before considering the relationship between LOE and integration per se, the relationship between LOE and race was established since one of the major assumptions of this study is that white students have higher expectations than nonwhite students. A review of current occupational expectation literature indicated that although there have been several studies investigating this question, the results were contradictory due to the varied conceptualizations of aspirations and expectations and the lack of differentiation between the two variables in various studies. Also, differences in methodological precedures used in eliciting responses in various research have caused confucion concerning the LOE-race relationship.

In order to resolve this problem in the present study, the following hypothesis was stated. (H_1) *LOE of segregated white students is higher than LOE of segregated nonwhite students*. Because physical integration is one of the major independent variables in this investigation, the LOE-race relationship within the physically integrated respondent group was also considered, as was the relationship within the total sample population. Thus, the null hypothesis was tested with three groups of respondents: the segregated respondents, the integrated respondents, and the total sample population. Results of the tests of independence are shown in Tables 1, 2, and 3, respectively.

Table 1. Percentage distribution of segregated respondents by level of occupational expectation and by race

Level of occupational expectation		Race		
		White (N = 235)	Nonwhite (N = 101)	Total (N = 336)
		Percent and Direction[a]		
Very high	(79-93)	15.7 0	13.9 -	15.2
High	(71-78)	21.3 +	17.8 -	20.2
Medium	(66-70)	13.6 -	18.8 +	15.2
Low	(60-65)	19.1 -	22.8 +	20.2
Very low	(23-59)	30.2 +	26.7 -	29.2
Total		99.9	100.0	100.0

$X^2 = 2.589$; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency.

Table 2. Percentage of distribution of physically integrated respondent by level of occupational expectation and by race

Level of occupational expectation		Race		
		White (N = 720)	Nonwhite (N = 198)	Total (N = 918)
		Percent and Direction[a]		
Very high	(79-93)	25.1 +	19.2 -	23.9
High	(71-78)	19.6 +	10.1 -	17.5
Medium	(66-70)	20.6 +	13.1 -	19.0
Low	(60-65)	18.0 -	28.3 +	20.3
Very low	(23-59)	16.7 -	29.3 +	19.4
Total		100.0	100.0	100.1

$X^2 = 35.565$; df = 4, Significant at the .001 level.

[a] Direction of deviation from expected frequency.

Table 3. Percentage distribution of all respondents by level of occupational expectation and by race

Level of occupational expectation		Race				
		White (N = 821)		Nonwhite (N = 433)		Total (N = 1254)
		Percent and Direction[a]				
Very high	(79-93)	23.8	+	17.3	-	21.5
High	(71-78)	19.4	+	16.2	-	18.3
Medium	(66-70)	20.3	+	13.4	-	17.9
Low	(60-65)	18.6	-	23.3	+	20.3
Very low	(23-59)	17.9	-	29.8	+	22.0
Total		100.0		100.0		100.0

X^2 = 35.936; df = 4, Significant at the .001 level.

[a] Direction of deviation from expected frequency.

The null hypothesis was not rejected relative to the segregated group of respondents (Table 1) indicating that there is no difference between LOE of white and nonwhite students within that group. However, the computed chi squares are significant for both the total sample group of respondents (Table 3) and for the integrated respondents (Table 2). Thus, the test hypothesis of no difference was rejected in each case. A comparison of data in Tables 2 and 3 shows that a greater proportion of the white respondents have expectations in the medium to very high range. Conversely, more nonwhite than white students have expectations in the low to very low range.[13]

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[13] Hagood and Price (1952) describe the procedure whereby the signs in the contingency tables are derived and interpret direction of association.

In summary, the conclusion drawn from the data in Tables 1, 2, and 3 is that there is no difference between the level of occupational expectations of white and nonwhite segregated students. It is also concluded that within physically integrated schools, white students have higher expectations than nonwhite students.

The findings imply that integration does affect the LOE-race relationship as expected. The rationale developed earlier suggested that it would be the nonwhite group (minority group members) that would be motivated to higher expectations by perceiving integration as a "success" accomplishment and that it would be members of that group that would benefit from socialization with the white group. If this situation prevailed as expected, the expectation level of nonwhites would be the same as that of whites in high integration situations but nonwhites would have lower expectations than whites in low integration situations. The stated hypotheses pertinent to these ideas are that (H_2) there is no difference between LOE of white and nonwhite students within the high (IPI, ISI) integration group, and (H_3) white students have higher expectations than nonwhite students within the low (IPI, ISI) integration group.

In order to test hypotheses 2 and 3 it was necessary to control for various intensities of both physical and social integration. Three levels or intensities of integration (high, medium, and low) were established within the integration frequency distributions. The test hypothesis in each case was the null hypothesis: "There is no difference between LOE of white and nonwhite respondents"; and the results are summarized in Table 4.

Table 4. Summary of the relationship between LOE and race controlling on various intensities of physical and social integration

IPI and ISI		Hypothesis relationship	Chi square (LOE X race)	N
Physical integration				
High	(18-63)	No difference	16.912[a]	323
Medium and low	(1-17)[b]	A difference	13.643[a]	595
Social integration				
High	(13-78)	No difference	9.461	318
Medium	(4-12)		6.181	448
Low	(0-3)	A difference	17.396[a]	

See Appendix Tables 8 through 12.

[a] Significant at or beyond the .05 level.

[b] The nonwhite low physical integration group did not contain a sufficiently large number of observations for the chi square test, therefore, the medium and low physical integration groups were combined.

As may be seen in Table 4, the computed chi squares for physically integrated groups suggest the existence of a phenomenon quite different from that which was expected. That is, contrary to the rationale, there is a difference between the LOE of whites and nonwhites at both the high physical integration intensity and the lowphysical integration intensity. Inspection of Appendix Tables 8 and 9 shows that in both cases, whites have higher expectations.

Considering social integration in Table 4 and Appendix Tables 10, 11, and 12, the conclusion is as had been hypothesized. LOE of whites is higher than nonwhites when social integration is low and there is no difference in LOE of the two racial groups when integration is high.

These findings are of major importance because they imply that through high social integration nonwhites' expectations may reach the level of whites' expectations and otherwise the white students have higher expectations than nonwhite students. The LOE-ISI association is even more meaningful when compared to the LOE-IPI finding and clearly indicates the different effects of IPI and ISI on LOE. In conclusion, hypothesis 2 is rejected and hypothesis 3 is not rejected relative to physical integration. Regarding social integration, neither hypothesis 3 nor 4 is rejected.

In order to further analyze the relationship between LOE and social integration, the stated hypothesis was that (H_4) there is a positive relationship between LOE and ISI within both the white and nonwhite groups. The logic behind this hypothesis, as explained earlier, is that the social aspect of integration should contribute to higher expectations. If this type of integration occurs despite an individual's race, the proportion of nonwhite students (physical aspect of integration) in a group would be of little consequence. Hence, hypotheses involving this type of integration were tested independent of physical integration.

The data for hypothesis 4 are presented in Table 5 and show that positive associations between LOE and ISI exist in all cases except within the low ISI subgroups where the taus are not significant. In summary, hypothesis 4 is not rejected.

Table 5. Summary of the relationship between LOE and ISI controlling on various intensities of social integration and on race

ISI and Race	Hypothesized relationship	Tau (LOE X ISI)	N
Nonwhite	Positive	.270[a]	433
Social integration			
High (13-78)		.143[a]	88
Medium (4-12)		.177[a]	154
Low (0-3)		.010	191
White	Positive	.292[a]	821
Social integration			
High (13-78)		.175[a]	230
Medium (4-12)		.139[a]	294
Low (0-3)		-.039	297

[a] Significant at or beyond the .05 level.

Hypotheses concerning the LOE-IPI relationship state that (H_5) there is a positive relationship between LOE and IPI within the non-white group. However, (H_6) there is no relationship between LOE and IPI within the white group. Hypotheses 5 and 6 considered collectively involve not only the separate racial groups but also the various intensities of integration were employed as separate groupings for the purpose of specification. In other words, it was not only desirable to know if a relationship exists between LOE and integration, and if so, in what direction within the racial groups, but information was also needed as to whether or not the same relationship existed within the various intensity of integration subgroups.[14] The computed taus relative to hypotheses 5 and 6 are summarized in Table 6.

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[14] See Mills, Frederick C. (1938), p. 253 for a discussion of breaking curvilinear data into segments.

Table 6. Summary of the relationship between LOE and IPI controlling on various intensities of physical integration and on race

IPI and Race	Hypothesized relationship	Tau (LOE X IPI)	N
Nonwhite	Positive	-.100[a]	198
Physical integration			
High (18-63)		-.181[a]	133
Medium (6-17)		-.102	51
Low (1-5)		.217	14
White	No association	-.035	720
Physical integration			
High (18-63)		-.074	190
Medium (6-17)		.012	267
Low (1-5)		.132[a]	263

[a] Significant at or beyond the .05 level.

Comparison of the data for the white and nonwhite physically integrated groups reveal that the tau for the nonwhite group is significant and negative (-.100) rather than positive as expected and that for the white group the tau is not significant which was expected. When the nonwhite group was divided into physical integration subgroups, only the high integration subgroup yielded a significant tau and it is negative (-.181). However, the tau for the low integrated white group (.132) is significant. The general conclusion is that among the nonwhite students as physical integration increases LOE decreases. Among white students there is no relationship between LOE and physical integration except when physical integration is low and within that integration subgroup a positive relationship between LOE and IPI prevails. Hence, hypothesis 5 is rejected and hypothesis 6 is not rejected.

The situation behind the findings concerning the preceding hypotheses, no doubt, will have a significant influence on many of the subsequent tests of hypotheses since those postulates are germane to the central notions underlying this study. Also, the findings have broad implications relative to the theoretical purpose of school integration. Those implications will be discussed in a later section; nevertheless, it is important to keep in mind the LOE-IPI-ISI relationship throughout the discussion of the remainder of the analysis.

As a further test of the expectation-physical integration relationship for white students, the hypothesis that (H_7) there is no difference between LOE of segregated and physically integrated students within the white group was tested. No difference in the expectation level was anticipated because, theoretically, it is the LOE of nonwhites rather than whites that integration affects. The hypothesis was tested for all integrated and segregated respondents and for each of the three physical integration categories. The results are shown in Table 7.

The conclusion suggested by an inspection of the results summarized in Table 7 is that the LOE of segregated and physically integrated white students does differ and Appendix Table 13 shows that the LOE of integrated students is higher than for segregated students. Thus, hypothesis 7 is rejected.

Table 7. Summary of the relationship between LOE and IPI controlling on various intensities of physical integration within the white group[a]

IPI	Hypothesized relationship	Chi square (LOE X IPI-segregation	N
All respondents	No difference	10.244[a]	820
Physical integration			
High (18-63)	No difference	3.479	290
Medium (1-17)		11.386[a]	367
Low (1-5)	No difference	12.241[a]	363

See Appendix Tables 13 through 16.

[a] Significant at or beyond the .05 level.

When physical integration is medium or low, a difference in LOE also exists and an analysis of Appendix Tables 15 and 16 indicates that a greater proportion of the medium and low integration respondents have higher expectations than do the segregated respondents. It is only when integration is high that there is a nonsignificant relationship (no difference) between LOE of the integrated and segregated group (Appendix Table 14).

The next problem was to ascertain if differences between the LOE of nonwhite segregated and physically integrated students existed. Based on the theoretical framework, it was expected that a difference would occur but only when integration was high, for if integration is low the nonwhite students would not be affected by it. The integration subgroups were utilized as in the case of the previous hypothesis and in this case the stated hypothesis was that (H_8) *there is a difference between LOE of segregated and high physically integrated nonwhite students*. However, the theoretical framework of this study also suggested the postulates that (H_9) *there is no difference between LOE of segregated and low physically integrated nonwhite students*. The data for hypotheses 8 and 9 are presented in Table 8.

Table 8. Summary of the relationship between LOE and IPI controlling on various intensities of integration within the nonwhite group

IPI		Hypothesized relationship	Chi square (LOE X IPI-segregation)	N
High	(18-63)	A difference	10.963[a]	368
Medium and low	(1-17)	No difference	5.829	299

See Appendix Tables 17 and 18.

[a] Significant at or beyond the .05 level.

[b] The medium and low integration group was combined in order to have a sufficiently large number of observations for the chi square test. There were only 13 respondents in the low integration group.

The chi square for the *high* integration group is significant as shown in Table 8. As expected, there is a difference between the LOE of segregated and highly integrated respondents; therefore, hypothesis 8 is not rejected. However, the data in Appendix Table 17 show that the integrated respondents generally have lower expectations than the segregated respondents even though the differences are not great.

Hypothesis 9 is not rejected since no difference in LOE exists in the low (and medium) integration group as had been expected (Table 8). Actually, the data concerning the high integration group were not entirely unexpected in view of some of the previous findings in this study and they continue to point to an emerging pattern regarding the LOE and integration relationship.

Analysis of the Relationship Between LOE and SES

Since socioeconomic status is perceived to be a condition enhancing educational and communication opportunities, a wide range of social interaction association, and in general "better life chances," it was hypothesized that (H_{10}) there is a positive relationship between LOE and SES. The data related to this hypothesis are presented in Table 9 and they show that the hypothesis is not rejected. There is a positive correlation within each of the three categories (all respondents, whites, nonwhites). Thus, as SES increases, occupational expectations are higher.

Table 9. Summary of the relationship between LOE and socioeconomic status controlling on race

Race	Hypothesized relationship	Tau (LOE X SES)	N
All respondents	Positive	.289[a]	1254
Nonwhite	Positive	.141[a]	433
White	Positive	.329[a]	821

[a] Significant at or beyond the .05 level.

Analysis of the Relationship Between LOE and Size of School

Students enrolled in large schools are expected to have higher occupational expectations than students enrolled in smaller schools, because, presumably in the larger schools there is a greater possibility for varied and broad socialization to occur. The large school normally offers a wider curriculum and the larger number of teachers and students increases interaction opportunities. The larger group should, therefore, offer a varied range of knowledge and philosophy which a student might acquire from both formal and informal association situations. Thus, size of school was conceptualized as much the same type of factor as was socioeconomic status. If it is indeed a condition that has a positive effect on LOE, it should partially reduce the negative effect that being nonwhite is assumed to have on expectations.

The hypothesis that was tested states that (H_{11}) there is a positive relationship between LOE and size of school. Results of the test of the hypothesis are shown in Table 10.

Table 10. Summary of the relationship between LOE and size of school controlling on race

Race	Hypothesized relationship	Tau (LOE X size of school)	N
All respondents	Positive	.104[a]	1254
Nonwhite	Positive	.047	433
White	Positive	.121[a]	821

[a] Significant at or beyond the .05 level.

The data in Table 10 show that the computed tau for the total sample population (.104) is significant; therefore, the hypothesis is tenable. However, when controlling on race the hypothesis is not upheld for nonwhite students, although it is for white students. This finding points to the condlusion that school size affects LOE within groups of white students but the relationship does not obtain among nonwhite students.

Analysis of the Relationship Between LOE and Community Orientation

The mass of expectation research related to community orientations almost consistently revealed that urban oriented high school students had higher educational and occupational expectations than rural oriented students (Kuvlesky and Pelham, 1960). Theoretically, the urban students have more opportunities to learn of possibilities open to them because their social and physical environment is more conducive to the learning process and because urbanites are assumed to have a wider range of associates than ruralites. Thus, it seemed plausible to incluse community orientation (rural or urban) in this study. The variable (community orientation) was conceptualized as another of the contingent conditions under which integration would be likely to contribute to high occupational expectations.

In order to test whether or not the urban community oriented respondents in this sample actually have higher levels of expectations than the rural oriented students, the following hypothesis was tested: (H_{12}) LOE of urban students is higher than LOE of rural students. Race was utilized as a control in the test of the hypothesis and the data are summarized in Table 11.

Inspection of Table 11 and Appendix Tables 26-28 reveals that the hypothesized relationship between LOE and community orientation is upheld relative to the total sample as well as the racial groups. The conclusion is that urban students have higher occupational expectations than rural students regardless of the race of the students.

Table 11. Summary of the relationship between LOE and community orientation controlling on race

Race	Hypothesized relationship	Chi square (LOE X community orientation)	N
All respondents	Urban higher	126.249[a]	1251
Nonwhite	Urban higher	37.008[a]	431
White	Urban higher	87.412[a]	820

See Appendix Tables 19 through 21.

[a] Significant at or beyond the .05 level.

Analysis of the Relationship Between LOE, IPI, ISI Socioeconomic Status, Size of School, and Community Orientation

Socioeconomic status, size of school, and community orientation are perceived to be "contingent conditions" that might intensify or conversely negate the integration and race effect on LOE. Two hypotheses that theoretically explain the "conditions" under which the LOE-race-integration relationship might function were tested. The first hypothesis was that (H_{13}) there is no difference between LOE of (physically integrated, segregated) white and nonwhite students within the (high socioeconomic status, large school, urban oriented) group.[15] The hypothesis that accounts for the extreme opposite "contingent condition was that (H_{14}) there is a difference between LOE of (physically integrated, segregated) white and nonwhite students within the (low socioeconomic status, small school, rural oriented) group.[16]

It was anticipated that the expectation level of physically integrated nonwhites within the high SES group would be equal to white students' expectations because the higher status would provide greater opportunities that would tend to negate the race effect by instilling attitudes of equality. However, the part of the hypothesis (H_{13}) relative to the physically integrated high SES group (chi square = 20.333) is rejected. There is a difference between LOE of whites and nonwhites within that group and Appendix Table 19 shows that members of the white high SES group have higher expectations.

The portion of hypothesis 13 dealing with the physically integrated students from large schools was stated because it was assumed that being enrolled in a large integrated school would bring nonwhites's expectations to a level nearly equal to the level of white students. However, the data, relative to that group and shown in Table 12, show that the hypothesis is not tenable. Appendix Table 23 indicates that

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[15] Hypotheses of this type will be tested separately for the integrated and segregated groups, and for the SES, school size, and community orientation categories.

[16] There was an insufficient number of respondents in some of the segregated school size categories, therefore, that size of school variable was deleted from the analysis relative to segregated respondents.

Table 12. Summary of the relationship between LOE and race controlling on socioeconomic status, size of school, and on community orientation within the physically integrated and segregated groups

IPI, SES, Size of community, and Community orientation		Hypothesized relationship	Chi square (LOE X race)	N
Physical integration				
Socioeconomic status				
High and medium	(54-93)[b]	No difference	20.333[a]	684
Low	(35-53)	A difference	2.817	233
Size of school				
Large	(240-625)	No difference	26.644[a]	382
Medium	(130-239)		15.715[a]	307
Small	(23-129)	A difference	4.359	229
Community orientation				
Urban		No difference	16.184[a]	411
Rural		A difference	16.393[a]	505
Segregation				
Socioeconomic status				
High and medium	(54-93)[b]	No difference	5.614	147
Low	(35-53)	A difference	2.640	189
Community orientation				
Urban		No difference	0.201	107
Rural		A difference	3.258	228

See Appendix Tables 22 through 32.

[a] Significant at or beyond the .05 level.

[b] The high and medium socioeconomic status groups were combined in order to achieve a sufficiently large N for the chi square test.

not only is there a difference in LOE between the integrated large school racial group, but also that white students have higher expectations.

Another purpose of hypothesis 13 was to determine if a difference in LOE exists between racial groups having an urban orientation. It was expected that no difference in LOE between the racial groups would exist since the urban environment theoretically offers broad interaction and socialization advantages as compared to rural environments. Nevertheless, as shown in Table 12 and Appendix Table 29, the physically integrated urban white students have higher expectations than the urban nonwhites.

Conversely, there is no difference between occupational expectations of white and nonwhite segregated students having urban orientations as indicated by the nonsignificant chi square (0.201) shown in Table 12. The conslucion is further verfied by the percentage distribution data in Appendix Table 31.

As also indicated in hypothesis 13, it was expected that high SES would nullify the race and integration effect to the extent that there would be no difference between LOE of white and nonwhite students even if the students were from segregated schools. Data in Table 12 show that hypothesis 13 is not tenable relative to the segregated high SES group, and therefore the conclusion is that there is no difference between LOE of segregated white and nonwhite students at the high and medium SES levels.

In summary, the conclusions drawn from the test of hypothesis 13 are as follows. (1) White physically integrated, high SES students have higher expectations than their nonwhite classmates with the same socioeconomic status; however, there is no difference between LOE of the high SES racial groups if they are segregated. (2) White students from physically integrated large schools have higher expectations than nonwhites enrolled in the same type of schools. (3) Physically integrated urban white students have higher expectations than integrated urban nonwhite students; however, there is no difference in the expectation level of the urban white and nonwhite students who are segregated.

As indicated by hypothesis 14 it was expected that low SES, attending a small school, or having a rural community orientation would have the effect of producing low expectations in both the white and nonwhite youth. However, it was also anticipated that there would be a difference in the expectation level of the white and nonwhite youth regardless of the racial factor (regardless of the integrated or segregated status).

The portion of the hypothesis (H_{14}) concerning low SES integrated students is not rejected as indicated in Table 12 and Appendix Table 20. Thus, the conclusion is that there is no difference between the LOE of integrated whites and nonwhites within the low status group.

Among the segregated groups of low status students the same situation prevails (Table 12 and Appendix Table 22). Hence, these results lead to the general conclusion that there is no difference between the occupational expectations of the low SES racial groups regardless of their school integration or segregation situation.

Another result of the test of hypothesis 14 is the conclusion that within the group of physically integrated male seniors from small schools there is no difference between the expectation level of whites and nonwhites. The nonsignificant chi square (Appendix Table 25) suggests the conclusion stated above.

Data in Table 12 and Appendix Tables 30 and 32 relative to integrated and segregated students with a rural orientation indicate that the integrated white and nonwhite students' expectation levels differ. White students' LOE is higher. However, those data also show that among segregated students there is no difference between the occupational expectation level of the white and nonwhite students.

From the test of hypothesis 14, the following summary of conclusions was drawn. (1) There is no difference between LOE of white and nonwhite low SES students regardless of integration or segregation. (2) There is no difference between integrated white and nonwhite students' expectations from small schools. (3) Whiet integrated rural students have higher expectations than nonwhites with the same characteristics, but there is no difference in the expectation level of the two rural groups if they are from segregated schools.

The summary conclusions from hypothesis 13 and 14 are interpreted to mean that high SES results in equal or nearly equal expectations for the two racial groups of students if the students are enrolled in segregated schools. Further, if students' SES is low, integration or segregation has but little effect on their LOE.

Another implication of these data is that attending a large integrated school apparently does little toward changing the occupational expectations of nonwhite students although it does in small integrated schools.

Regarding community orientation, urban students seem to have no advantage in terms of expectations over rural nonwhite students who are integrated. This may be because white students have higher expectations regardless of their community orientation. On the other hand, if the students are segregated, the nonwhites have expectation levels similar to whites regardless of whether the students have an urban or a rural orientation.

The "contingent condition variables" -- socioeconomic status, size of school, and community orientation -- were expected to correlate either positively or negatively with LOE depending on the state of the individual "contingent condition variable." In the case of SES the state could be either high, medium, or low and the state or size of school could be either small, medium, or large. Similarly, the state of a person's community orientation is perceived to be either urban or rural.

Following the theoretical framework of the study and further utilizing the "contingent condition variables," the postulate was that (H_{15}) there is a positive relationship between (physical, social) integration within the (high socioeconomic status, large school, urban oriented) group. Regarding the extreme opposite state of the "contingent conditions," the stated hypothesis was that (H_{16}) there is a negative relationship between LOE and (physical, social) integration within the (low socioeconomic status, small school, rural oriented) group. The results of the test of hypotheses 15 and 16 are summarized in Tables 13 (SES), 14 (size of school), and 15 (community orientation). Race was also utilized as a control factor in the analysis of data pertaining to hypotheses 15 and 16, and the data are included in Tables 13, 14, and 15.

The physical integration portion of the data relative to LOE-IPI and high SES shows that the stated hypothesis (H_{15}) is nor tenable because the relationship is negative rather than positive as anticipated. The conclusion is that within the high SES group of students LOE and IPI are negatively associated. However, when race is controlled, it is only within the white group that the negative relationship occurs.

The data in Table 13 also show that there is no association between LOE and IPI within the low SES total sample group or within the low SES total sample group or within the low SES racial groups. Thus, hypothesis 16 is rejected relative to the LOE-IPI low SES relationship.

The LOE-ISI portions of hypotheses 15 and 16 dealing with various levels of SES are tenable as indicated by the data in Table 13. In fact there is a positive correlation between LOE and ISI at all levels of SES for both the white and nonwhite groups. These findings support the results of the test of hypothesis four and further imply that race is of little consequence in the ISI, LOE, and SES relationship.

The rationale of this study suggested that among the students who are physically integrated a positive association would occur between LOE and IPI if the students attend a large school because the large school effect plus the integration effect should result in high

Table 13. Summary of the relationship between LOE and integration controlling on IPI, ISI, race, and on various socioeconomic statuses

IPI, ISI, SES, and race	Hypothesized relationship	Tau (LOE X integration)	N
Physical integration			
Socioeconomic status			
High (66-93)	Positive	-.077[a]	332
Medium (54-65)		.002	353
Low (35-53)	Negative	-.051	233
Nonwhite			
Socioeconomic status	Positive		
High (66-93)		-.069[a]	315
Medium (54-65)		.005	299
Low (35-53)		.049	106
Social integration			
Socioeconomic status			
High (66-93)	Positive	.247[a]	377
Medium (54-65)		.254[a]	455
Low (35-53)	Negative	.262[a]	422
Nonwhite			
Socioeconomic status	Positive		
High (66-93)		.248[a]	37
Medium (54-65)		.212[a]	112
Low (35-53)		.254[a]	284
White			
Socioeconomic status	Positive		
High (66-93)		.242[a]	340
Medium (54-65)		.264[a]	343
Low (35-53)		.274[a]	138

[a] Significant at or beyond the .05 level.

Table 14. Summary of the relationship between LOE and integration controlling on IPI, ISI, race, and on various sizes of school

IPI, ISI, size of school and race		Hypothesized relationship	Tau (LOE X integration)	N
Physical integration				
Size of school				
Large	(240-625)	Positive	-.141[a]	382
Medium	(130-239)		-.100[a]	307
Small	(23-129)	Negative	.002	229
Nonwhite				
Size of school				
Large	(240-625)	Positive	-.096	46
Medium	(130-239)		-.075	61
Small	(23-129)	Negative	-.089	91
White				
Size of school				
Large	(240-625)	Positive	.050	183
Medium	(130-239)		-.042	246
Small	(23-129)	Negative	-.086[a]	291
Social integration				
Size of school				
Large	(240-625)	Positive	.268[a]	427
Medium	(130-239)		.361[a]	370
Small	(23-129)	Negative	.324[a]	457
Nonwhite				
Size of school				
Large	(240-625)	Positive	.283[a]	136
Medium	(130-239)		.265[a]	110
Small	(23-129)	Negative	.307[a]	187
White				
Size of school				
Large	(240-625)	Positive	.246[a]	291
Medium	(130-239)		.377[a]	260
Small	(23-129)	Negative	.327[a]	270

[a] Significant at or beyond the .05 level.

Table 15. Summary of the relationship between LOE and integration controlling on IPI, ISI, race, and on community orientation

IPI, ISI, community orientation	Hypothesized relationship	Tau (LOE X integration)	N
Physical integration			
Community orientation			
Urban	Positive	-.131[a]	411
Rural	Negative	-.056[a]	505
Nonwhite			
Community orientation			
Urban	Positive	-.068	76
Rural	Negative	-.--8	121
White			
Community orientation			
Urban	Positive	-.112[a]	335
Rural	Negative	.002	384
Social integration			
Community orientation			
Urban	Positive	.297[a]	518
Rural	Negative	.303[a]	733
Nonwhite			
Community orientation			
Urban	Positive	.298[a]	165
Rural	Negative	.236[a]	266
White			
Community orientation			
Urban	Positive	.294[a]	353
Rural	Negative	.324[a]	467

[a] Significant at or beyond the .05 level.

expectations. The data in Table 14 show, however, that there is a negative relationship between LOE and IPI relative to students in large schools. Hence, the hypothesis (H_{15}) concerning large schools is not tenable.

Hypothesis 16, dealing with the LOE-IPI small school relationship was rejected as indicated by the data in Table 14 because the expected negative LOE-IPI relationship did not result for the total sample. However, there is a negative association within the group of white students (tau = -.086).

Because there is a positive relationship between LOE and ISI within the large school group as expected, hypothesis 15 was not rejected. There is also a positive relationship between LOE and ISI within the medium and small school size group and that result was not expected. Thus, it is concluded that hypothesis 16 is rejected regarding the LOE-ISI small school association.

In consideration of the association between the major dependent and independent variables, LOE and integration respectively, and community orientation, data in Table 15 show that LOE and IPI is negatively associated regarding urban oriented students (tau = .131). There is no association within the nonwhite group; however, there is also a negative association within the white group. In conclusion, hypothesis 15 is rejected regarding IPI and urban orientation.

Similar results were obtained within the rural groups of physical integrated students. That is, there is a negative relationship between LOE and IPI within the total sample of students; however, there is no relationship between LOE and IPI within the separate racial groups.

These findings imply that the almost consistent LOE-IPI negative association may be accounted for more among urban students than among students with a rural community orientation. Also, it appears that it is within the group of white students that the negative LOE-IPI association prevails rather than among nonwhites.

As was hypothesized (H_{15}), there is a positive relationship between LOE and ISI within the urban oriented group of students. An inspection of data in Table 15 shows that the hypothesis is not rejected because the relationship holds for the total sample population as well as the separate racial groups.

It was further hypothesized (H_{16}) that the LOE-ISI relationship would be negative among rural oriented youth. That hypothesis is rejected because significant positive taus were yielded as may be seen in the lower portion of Table 15.

One of the striking features of the data in Tables 13, 14, and 15 is that the ISI correlations are comparatively large. Also it is noteworthy that the LOE-ISI taus are consistently positive relative to all levels of SES, sizes of schools, and both community orientations. This observation as contrasted to the usual negative relationship between LOE and IPI implies that physical integration and social integration function quite independently of each other.

Analysis of the Relationship Between LOE, IPI, ISI, and KOEO

This and the next section of the analysis are concerned with various aspects of occupational education. The purpose of this section is to discuss the analysis of the relationship between occupational expectations and knowledge of occupational education opportunities (KOEO) and also the relationship between integration and KOEO. The three dimensions of the knowledge variable that were delineated and described previously were analyzed independently. The dimensions are as follows: KOEO-1, knowledge of the Community College, Industrial Education Center, or Technical Institute concept (as used in North Carolina); KOEO-2, knowledge of any technical or vocational education school; KOEO-3, knowledge of training programs at any of the vocational or technical education schools including Community Colleges, Industrial Education Centers, or Technical Institutes.

The first hypothesis tested centered around the relationship between LOE and the dimensions of KOEO. LOE was treated as the dependent variable. The stated hypothesis was that (H_{17}) there is a positive relationship between LOE and knowledge of occupational education opportunities (KOEO-1, KOEO-2, KOEO-3). Results of the test of the hypothesis are presented in Table 16.

The data in Table 16 show that the LOE-KOEO-1 association is positive as expected. The conclusion is that there is a positive relationship between LOE and KOEO-1 not only within the total sample but also within the white and nonwhite groups. Thus, the generalization may be made that the more knowledgeable North Carolina male high school senior students are about the Community College system in North Carolina, the higher their expectation level is likely to be.

Table 16. Summary of the relationship between LOE and knowledge of occupational education opportunities controlling on race

Race	Tau (LOE X KOEO-1)[b]	Tau (LOE X KOEO-2)[c]	Tau (LOE X KOEO-3)[d]	N
All Respondents	.131[a]	.110[a]	.034[a]	1254
Nonwhite	.195[a]	.178[a]	.064[a]	433
White	.076[a]	.084[a]	.008	821

[a] Significant at or beyond the .05 level.

[b] KOEO-1 refers to knowledge concerning community colleges, industrial education centers, or technical institutes.

[c] KOEO-2 refers to knowledge concerning any vocational or technical school.

[d] KOEO-3 refers to knowledge concerning training programs offered by vocational and technical schools or community colleges.

The results concerning LOE and KOEO-2 are similar as shown in Table 16. Significant positive association between LOE and KOEO-2 were found within the total sample group as well as within both of the racial categories. The conclusion is that there is a positive relationship between students' LOE and their knowledge of technical and vocational schools (other than those perceived as being a part of the North Carolina Community College system).

The final knowledge dimension (KOEO-3) is likewise positively associated with students' LOE. However, the association does not exist within the white group (tau = .008) even though it does within the total sample group (tau = .034) and the nonwhite group (tau = .064). Hence, the conclusion is that among nonwhite students there is a positive association between LOE and knowledge of training programs at vocational education schools including those in the Community College system. An opposite conclusion applies to white students, however.

The general conclusion concerning hypothesis 17 is that the hypothesis is tenable. There is a positive relationship between students' LOE and their knowledge of occupational education opportunities.

In the next hypothesis, each of the three dimensions of knowledge of occupational education opportunities was treated as a dependent variable and integration (IPI and ISI) was the independent variable. Results of the test of the hypothesis that (H_{18}) there is a positive relationship between (physical, social) integration and knowledge of occupational education opportunities (KOEO-1, KOEO-2, KOEO-3) are shown in Table 17.

The data in Table 17 show that KOEO-1 is negatively associated with physical integration within the group of physically integrated students (tau = -.071) and the nonwhite physically integrated group of students (tau = -.176). However, there is no association between IPI and LOE within the white group of respondents. This apparently means that within the group of nonwhites an increase in physical integration in their school would result in less knowledgeable student concerning the institutions in the community college system.

Regarding KOEO-2, there is no association between IPI and knowledge of vocational and technical schools within any groups other than within the nonwhite group of respondents. Hence, increased physical

Table 17. Summary of the relationship between IPI, ISI, and knowledge of occupational education opportunities controlling on race

IPI, ISI, and race	Tau (integration X KOEO-1)	Tau (integration X KOEO-2)	Tau (integration X KOEO-3)	N
Physical integration	-.071[a]	-.034	-.062[a]	924
Nonwhite	-.176[a]	-.128[a]	-.057	198
White	-.006	-.014	-.042[a]	726
Social integration	.122[a]	.145[a]	.099[a]	1262
Nonwhite	.183[a]	.223[a]	.199[a]	434
White	.075[a]	.106[a]	.038[a]	828

[a] Significant at or beyond the .05 level.

integration evidently lowers white students' knowledge regarding vocational schools. While this assuredly occurs in some schools, it probably does not in all schools and perhaps may be explained by the individual type of school involved. That is, types of schools such as urban versus rural or large versus small might result in quite different association between IPI and KOEO-2.

The analysis of the association between IPI and KOEO-3 reveals that the variables are negatively associated (Table 17). The negative association exists within the total group of integrated students and the group of whites; however, there is no association between IPI and KOEO-3 within the nonwhite group.

In summary, hypothesis 18 is rejected relative to KOEO-1, KOEO-2, and KOEO-3. The inconsistencies in the IPI-KOEO association, especially concerning racial groups, might be explained by the fact that certain "types of knowledge" are more relevant to some groups than to other groups. For example, information about colleges might be irrelevant to some groups and extremely relevant to another group of students depending upon the students' postsecondary education plans. Certainly if a majority of the group members planned no formal education beyond the high school level, information about colleges would probably be of little concern to them. The relevance of some particular fact or information to an individual would likely determine whether or not the information or fact became part of the person's "storehouse of knowledge" (Mercer, 1965). Hence, some specific group might have extremely high occupational expectations and at the same time know almost nothing about occupational education programs and schools.

The portion of hypothesis 18 concerning the association between ISI and the knowledge dimensions was upheld. As shown in Table 17, positive taus were obtained for every group for which the hypothesis was tested. Thus, an increase in social integration in the high schools results in increased student knowledge concerning occupational education and the programs taught in the institutions.

Analysis of the Relationship Between LOE, IPI, ISI, and OPB

The hypotheses described in this final section of the analysis chapter are similar to the hypotheses in the preceding section relative to the manner in which the LOE, IPI, ISI, and race variables were handled. In this section, however, the focus in upon students' occupational preparation behavior. More specifically, the behavior considered is perceived by the investigator to be high school students' preparation for continued education and ultimately for the establishment in an occupation.

Increased physical integration with its assumed high rate of socialization should, theoretically, provide motivation and opportunities for a high level of occupational preparation behavior, and the level of occupational preparation behavior should increase accordingly. Also, there should be a direct correlation between the level of occupational preparation behavior and occupational expectations assuming that students perceive preparation behavior as a means to eventually reaching their occupational goals.

The three dimensions of the occupational preparation behavior variable are OPB-1, expected educational level; OPB-2, high school letter grade average; and OPB-3, number of contacts with guidance personnel.

The hypothesis regarding LOE and the three dimensions of occupational preparation behavior is that (H_{19}) there is a positive relationship between LOE and occupational preparation behavior (OPB-1, OPB-2, OPB-3). The data are presented in Table 18 and show that LOE is positively related to all dimensions of OPB within the total sample population as well as within the racial groups. Thus, the hypothesis is tenable. It is concluded that LOE is positively associated with high school male seniors' educational expectations, their average high school letter grades, and the number of times they contacted their guidance counselor.

A noteworthy feature of the data in Table 18 is the range and size of the computed taus, especially those for OPB-1 (expected education level). In that category, which by far contains the largest correlations encountered in this analysis, the range is from .597 to .743.

Table 18. Summary of the relationship between LOE and occupational preparation behavior controlling on race

Race	Tau (LOE X KOEO-1)[b]	Tau (LOE X KOEO-2)[c]	Tau (LOE X KOEO-3)[d]	N
All Respondents	.680[a]	.323[a]	.246[a]	1254
Nonwhite	.597[a]	.225[a]	.262[a]	433
White	.718[a]	.368[a]	.251[a]	821

[a] Significant at or beyond the .05 level.

[b] OPB-1 refers to educational expectations.

[c] OPB-2 refers to average high school grades.

[d] OPB-3 refers to contacts with guidance counselor.

Table 19. Summary of the relationship between IPI, ISI, and occupational preparation behavior controlling on race

IPI, ISI, and race	Tau (Integration X OPB-1)	Tau (Integration X OPB-2)	Tau (Integration X OPB-3)	N
Physical integration	-.097[a]	-.031	-.044[a]	924
Nonwhite	-.169[a]	.059	.080[a]	198
White	-.038	-.012	-.061	726
Social integration	.328[a]	.297[a]	.253[a]	1262
Nonwhite	.317[a]	.180[a]	.260[a]	434
White	.327[a]	.353[a]	.258[a]	828

[a] Significant at or beyond the .05 level.

Those high correlations reflect the general belief that educational achievement is the major avenue of advancement to high occupational status.

The data presented in Table 19 are also relevant to results of the test of the hypothesis that (H_{20}) there is a positive relationship between (physical, social) integration and occupational preparation behavior (OPB-1, OPB-2, OPB-3).

The data which appear in summary form in Table 19 show that there is a negative relationship between IPI and OPB-1 relative to all physically integrated students taken as a single group. However, when that group is divided by race, there is no association between IPI and OPB-1 for the white group of students. The conclusion is that physical integration and educational expectations are negatively correlated for the nonwhite students and the combined racial groups of students.

There is no association between IPI and OPB-2 (average high school letter grades) within any of the groups of respondents.

Regarding IPI and OPB-3, there is a negative relationship (tau = -.044) within the total sample group and the white group (tau = -.061); while there is no association within the nonwhite group. Thus, as physical integration increases, white students contact their guidance counselors less.

In consideration of the overall results of the test of the relationship between IPI and OPB, it is concluded that there is either a negative association between physical integration and education expectations, average grades, or contacts with guidance personnel, or that there is no association between the variables depending on the racial group involved. In either case, the stated hypothesis (H_{20}) is rejected relative to physical integration.

The data concerning social integration and occupational preparation behavior are presented in the lower half of Table 19 and they show that ISI and all dimensions of OPB are positively related. The conclusion in view of those data is that as social integration increases, students' educational expectations increase, their average grades improve, and they contact their guidance counselor more often. Hypothesis 20 is, therefore, not rejected.

SUMMARY AND IMPLICATIONS

Summary of the Problem and Theoretical Orientation

Racial integration in school systems is a major concern of a large segment of American society, because it is related to the idea of equal educational opportunities for all students. There is a general belief that integrated schools provide socialization opportunities and motivation that enhance students' educational and occupational achievement. There is only conjecture, however, about the actual effect integration has on students' attitudes and behavior. Whether or not integration leads to higher aspirations and expectations is one of the basic questions being asked.

The major problem in this study was the investigation of the relationship between school integration and students' occupational expectations. More specifically conclusions concerning the following questions were sought.

1. Do white students have a higher expectation level than nonwhite students?
2. Do physical integration and social integration have the same effect on level of occupational expectation?
3. Are the expectation levels of white and nonwhite students more similar under a higher intensity of integration than a lower intensity of integration?
4. Do higher socioeconomic status, large school size, or an urban community orientation contribute to a higher expectation level?

5. Do intensities of integration influence knowledge of occupational education opportunity and occupational preparation behavior?
6. Does knowledge of occupational education opportunities or occupational preparation behavior influence higher expectation level?

The study also dealt with two other problems. First, it was desired that a determination be made regarding the potential that secondary school systems have for changing students' educational and occupational expectations. That problem is dealt with in terms of implications from the major research findings.

The final problem related to the question of the long-range influence of integration and occupational expectations on occupational achievement. This study furnishes data and a beginning for the longitudinal research necessary to attack that problem.

The theoretical orientation of the study focused on two major concepts -- level of occupational expectation and school integration. Basically, occupational expectation, a concept derived from general level of aspiration theory, is the occupational status that an individual expects to achieve in consideration of more and less difficult occupational alternatives. Level of occupational expectation is assumed to result from the individual's experiences in his environment. The environment affects the socialization and motivation of the individual which in turn influences his level of expectation and ultimately his overt behavior.

School integration represents a particular type of physical and social environment in which the individual is socialized and the concept is perceived to have two major dimensions -- physical integration and social integration. Physical integration concerns the physical makeup of groups of students who are members of various races. Social integration relates to the cohesiveness and involvement manifested by the student in group activities. Students' race, their socioeconomic status, the size of the school they attend, their community orientation, their knowledge of occupational education possibilities, and their occupational preparation behavior are theoretically involved in the occupational expectation-integration relationship.

Summary of Findings and Conclusions

In physically integrated school situations white students have a higher level of occupational expectation than nonwhite students, except in the following circumstances. When socioeconomic status is low or the size of school is small or the social integration is high or medium, there is no difference in the expectation levels of white and nonwhite students.

In segregated school situations there is no difference between the occupational expectation level of white and nonwhite students regardless of the student's socioeconomic status. Also, regardless of community orientation, either rural or urban, there is no difference between the expectation level of students in the separate racial groups when the students are segregated.

Further, the data show that under the condition of high social integration, both white and nonwhite students have much higher expectations than students within low social integration situations. This phenomenon occurs in both segregated and physically integrated schools.

An additional conclusion regarding community orientation is that students who have an urban orientation, whether white or nonwhite, or segregated or physically integrated, have higher occupational expectations than rural oriented students. And, regardless of the intensity of physical integration, integrated whites -- both rural and urban -- have higher expectations than segregated white students. However, segregated nonwhite students, both rural and urban, have a higher expectation level than the physically integrated nonwhite students.

In essence, there is no association between level of occupational expectation and intensity of physical integration regardless of race, socioeconomic status, size of school, or community orientation. Although a negative association exists within the high physically integrated nonwhite group and a positive association exists within the low physically integrated white group of students, in both cases the degree of association is extremely low.

Conversely, there is a positive association between occupational expectation level and social integration. The relationship obtains regardless of community orientation, socioeconomic status or size of school in which students are enrolled. The only exception in which the two variables are not related is in situations where low social integration prevails. The social integration-occupational expectation relationship is almost consistently positive, although the degree of association is not very high in that the general range of correlation is between .25 and .35.

There is a positive association between occupational expectation level and socioeconomic status. Also, expectation level and size of school are positively related within groups of white students, but there is no association between expectations and size of school within groups of nonwhite students.

For both white and nonwhite students, there is a positive relationship between intensity of both physical and social integration and all dimensions of knowledge of occupational education and all dimensions of occupational preparation behavior studied. The knowledge-social integration correlations are extremely low (range of .04 to .22) and indicate very weak relationships; however, the occupational preparation -- social integration correlations are somewhat higher (range of .22 to .39).

In essence, there is no relationship between the dimensions of knowledge of occupational education opportunity and intensity of physical integration. Also the dimensions of occupational preparation behavior and physical integration are not associated. In all situations considered, the relationships are statistically nonsignificant or they are very weak negative associations (range -.04 to -.18).

Similarly, the expectation-knowledge relationship is positive but weak regarding all dimensions studied, except that among white students there is no association between expectations and knowledge of vocational or technical programs (KOEO-3). The three dimensions of occupational preparation behavior are positively associated with expectation level and those relationships are comparatively strong.

Evaluation of the Relation of Results, Theoretical Orientation, and Method

Certainly the most fundamental finding in this research was that there is a negative association between physical integration and LOE among nonwhite students, and there was no association among white students. This finding, for nonwhite students, is in direct opposition to the theoretical notions on which this study is based.

Perhaps Chinoy's (1952) statements concerning socialization might offer some explanation for the unexpected results. He stated explicitly that socialization occurs over a long period of time and that the finished product -- roles, attitudes, values -- becomes more firmly internalized within the individual with a passing of more and more time. Hence, the individual is not highly susceptible to change even though his social environment may change. This suggests that it may not be reasonable to expect that a year, or even two or three years of socialization in a physically integrated school situation would "change" the expectations that the majority of nonwhites have acquired from family and segregated school situations throughout their lives. This, of course, does not say that all nonwhite students have lower levels of expectations than white students; nevertheless, the findings in this investigation show that generally this is the case. A fundamental assumption in the theoretical framework on which this research is based is that the nonwhite students had been enrolled in integrated schools for a long enough period of time to have been "socialized by their white classmates." Apparently the assumption was unfounded.

If this is indeed a true picture, then the high occurrence of low expectations in high physically integrated schools might be explained by the fact that there are simply more nonwhites present and the group of nonwhites as a whole has low expectations. This explanation assumes the occurrence of socialization but also assumes that an insufficient time interval has lapsed that would allow for the influence of socializing with whites to affect the nonwhites' expectation level.

There is no assurance, however, that the socialization process actually occurs in the physically integrated situation even over a long period of time. The positive function of the socialization process cannot be expected to be realized if there is no significant interaction between different individuals since social interaction is the fundamental element of the socialization process. If it is accepted that the socialization process does not occur significantly in physically integrated situations, there would be no reason to expect a positive relationship between LOE and IPI. The analysis of data supports this assumption and careful visual observations of students on school buses and playgrounds and in lunchrooms of physically integrated schools suggest the conclusion that significant interaction does not take place under conditions of high physical integration but that it does to a relatively high degree within low integration situations.

Thus, the relative importance of school integration would seem to lie in the social dimension of integration, as it has been conceptualized in this study, and in which the interaction aspect of socialization is not assumed, but rather assured. The most clearly established finding in this study is that social integration is positively related to level of expectation. The logical conclusion is, therefore, that physical integration does not assure that social integration -- interaction, socialization, a unity of attitudes -- takes place among a large proportion of the students of the various races involved. Certainly the assumption that intensity of physical integration and intensity of social integration occur at equal or nearly equal rates is an important aspect of the philosophy on which school integration policy has been established. That the assumption is likely unfounded is further evidenced by the frequent instances of discontent and sometimes violence that have occurred in highly physically integrated schools throughout the country in recent months.

The findings relative to the intervening variables could not logically be expected to produce outcomes other than those which actually occurred since the expectation-physical integration outcome was in such opposition to that which was postulated. The intervening variables did, however, function to support the conclusion that physical and social integration are quite different phenomena and that eventually for integration to positively influence expectations both physical and social integration must be a part of school integration.

The analysis also furnished evidence to suggest that the "reality aspect" of the aspiration-expectation phenomena probably operates in relation to integration. It is conceivable that in a face-to-face physical integration situation, observing potential competitors for occupational goals, one might re-examine his abilities and limitations using the opposing group as a reference. Under such circumstances the reappraisal would likely result in more realistic and possibly changed attitudes in comparison to the attitudes and values held prior to the evaluation. Certainly there are at least some attitude differences between physically integrated students and students who have not had the physical integration experience. This notion might explain some of the unexpected findings concerning the white students and the influence of the intervening variables.

Another factor that might account for some of the confounding results, especially those concerning the occupational knowledge variable, is that the respondents possibly did not perceive the dimensions of knowledge utilized as being relevant to their particular educational and/or occupational situation. If a certain fact or piece of information was not relevant to an individual or group of individuals, it probably would not be included in the cognition process functioning within that person or group of persons. It is feasible that this might have occurred since a significantly large proportion of the respondents in this research either expected to have no further education beyond high school (15.5 percent) or expected to participate in traditional higher education (44.1 percent).

On at least three counts the process of selectivity probably has had an effect on the results in this investigation. First, all nonwhite students did not attend integrated schools under the same circumstances. Although the "freedom of choice" policy existed in North Carolina when the data were collected, apparently physical integration was accomplished under two different sets of circumstances. Either by the process of school consolidation or the manipulation of school boundaries, various proportions of white and nonwhite students had been assigned to integrated schools. In other cases, students were simply allowed to choose which school they would attend. It is assumed that most of the 14 nonwhite students attending low physically integrated schools were doing so because they or their parents wanted them to do so. Probably a large proportion of the 51 medium intensity of integration students attended integrated schools under similar circumstances. However, it is also probable that a majority of the 133 high intensity of integration students were assigned to their schools with little regard for their own wishes. Under such conditions, it is reasonable to believe that students who elected to attend schools in which they were the lone nonwhite student, or at least only one of two or three nonwhites, would already have many characteristics and attitudes different from their counterparts who elected to attend segregated schools. Presumably these students were the ones who already had high expectations when they entered the predominantly white schools, and since they were practically alone relative to having other members of their racial group to interact with, they either were "forced" to interact with -- and subsequently be socialized by -- their white fellow students or function as semi-isolates. Also it is reasonable that nonwhite students of this type would be more readily accepted than the average student, since he would have demonstrated his difference by electing to attend the predominantly white school. On the basis of observation of students, this seems to be the case in the integrated schools included in this study.

Another way in which selectivity probably is operating has to do with the size of school variable. The question might be asked, "Is a large school more or less favorable for social integration?" The notion that "bigness," in terms of student enrollment, might reduce the opportunity for social integration seems contrary to that which is usually expected. Yet, it is possible that students "get lost in the crowd" to the extent that meaningful interaction might be more likely to occur in small schools than in larger ones. That is, a student in a smaller school might have more opportunity to involve himself and become an integral part of a small group than he would if there were many people competing for the more active roles.

Another means by which the selectivity process operates relates to the traditional differences between the rural and urban school systems' administrative policies. It is assumed that among the policies there are those which indirectly determine whether students elect to attend integrated schools or are simply assigned to a school. If this is true, the type of school -- rural or urban -- might ba a strong determining factor in the type of nonwhite students -- high or low expectations -- who are likely to attend a particular school.

Although the contingent condition variables -- socioeconomic status, community orientation, and size of school -- were generally found to be associated with level of occupational education, the findings regarding these factors should be accepted with caution because of their selective nature. Thus, any further research of this type -- and it is felt that the general results are sufficiently significant to warrant further studies -- should include a quite different research design.

The sample of this study was purposely designed so that generalizations drawn from the research findings would apply to a large population -- the male senior students in North Carolina high schools. It was realized that there would be a great deal of variability particularly with regard to the intervening variables and physical integration and that factor was taken into account in the sample design. However, it was not suspected that the selectivity factors described above would operate as they now appear to.

Implications for Occupational Education

The central concern in this study has been the investigation of the relationship between school integration and occupational expectations. Much of the specific focus has been on the effect integration might have on students' level of occupational expectation. It was assumed that nonwhite students within the integrated school would learn about new educational and occupational opportunities and possibilities which were within their capabilities. In addition, it was assumed that this knowledge would lead to higher expectations which would in turn motivate individual students to manifest behavior enhancing the eventual accomplishment of expected occupational and educational goals.

These assumptions, which in essence are undergirded by occupational expectation theory, and the findings reported in this study seem to have broad implications for occupational education. This is true in view of the fact that one of the goals of occupational education is to to identify and contribute to the alleviation of barriers to the development of environments in which programs of occupational education for all persons and groups can be operationalized. Assuming that low expectations are a barrier to occupational education or that an environment not conducive to the motivation of high expectations is a barrier, then this research is pertinent to occupational education. This study is concerned with identifying groups of individuals who manifest low expectations and investigating environments and processes which are proposed to influence the establishment of occupational expectations.

Probably one of the more important implications for occupational education in this study is that much of the focus is on nonwhite males' occupational expectations. While nonwhites have made some gains during the past decade, there is little doubt that their present high rate of unemployment is related to their lack of education and skills. These deficiencies are reflected by the fact that within the nonwhite segment of the population of the United States unemployment rose from 22.7 percent in 1960 to 30.4 percent in 1968 (United States Bureau of the Census, 1969).

Increased technology and the growing specialization in the occupational structure indicate that some type of formal post secondary education is essential to gainful employment offering reasonable career progression. Today, probably more than ever before in history, education is a prerequisite to occupational mobility. While the number of persons pursuing education beyond high school is increasing, the number of institutions offering various types of educational programs and the costs of education in terms of time and money are also increasing. Thus, it seems reasonable that occupational education, defined as technical, vocational, or other education beyond the secondary level -- but not including traditional higher education -- would be to a great extent most applicable to low expectation students, either white or nonwhite, because it probably comes much closer to fitting their intellectual, financial, and interest capabilities than traditional higher education.

These factors suggest the reason and need for undertaking an educational program in integrated schools that would have as its general goals increasing the motivation level of low expectation students and guiding those students into appropriate occupational education programs. Based on the knowledge and understanding of occupational education theory and the conclusions of the present study, such a program might be structured within the framework of vocational education and guidance programs in secondary education.

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APPENDIX A

Questionnaire

CONFIDENTIAL

Respondent No.____________________

School__________________________

INVENTORY OF OCCUPATIONAL PLANS OF HIGH SCHOOL SENIOR BOYS

CHARLES E. LEWIS
Department of Sociology and Anthropology
North Carolina State University at Raleigh

CENTER FOR OCCUPATIONAL EDUCATION
North Carolina State University at Raleigh
Raleigh, North Carolina

1968

DIRECTIONS:

The following questions are a part of a study of high school students in North Carolina. The study is being conducted by personnel in the Center for Occupational Education at North Carolina State University in Raleigh for the purpose of learning more about what students think about their future and what they plan to do after they leave high school.

This is not a test! There are no right or wrong answers to the questions. We are only interested in finding out your opinion and plans about some important matters. Your answers will be considered as confidential and no one in your school will ever see what you write down. You will have all the time you need to complete the questionnaire. Read each question carefully and look at all of the possible answers before you decide which answer applies to you. If you do not understand a question, please raise your hand and the interviewer will explain the question. We expect your answers to be different from those given by your friends, so please do not be concerned about what answers they give.

We hope that you will cooperate so that this will be a good scientific study. Please answer all the questions as frankly and honestly as you can. We appreciate your help very much.

Do not write in this space.		
	IBM	Code
Card	1	(___)
Respondent	2, 3	(___) (___)
Class	4	(___)
School	5, 6	(___) (___)
Size	7, 8, 9	(___) (___) (___)
Percent	10, 11	(___) (___)

Do not write in this space.	
IBM	CODE
12	(___)
13,14	(___) (___)
15,16	(___) (___)

1. How old were you on your last birthday?

(_____) a. 16 years old.

(_____) b. 17 years old.

(_____) c. 18 years old.

(_____) d. 19 years old.

(_____) e. 20 years old.

(_____) f. 21 years old.

2. Please indicate the number of years during your lifetime that you have lived in any of the following types of communities.

Number of years	Type of community
(________ years)	a. On a farm.
(________ years)	b. In the country, but not on a farm.
(________ years)	

		IBM	Code
(_____ years)	c. In a town with less than 2,500 people.	17,18	(__)(__)
(__________)	d. In a city with less than 75,000 people.	19,20	(__)(__)
(__________)	e. In a large city with more than 75,000 people.	21,22	(__)(__)
	Do not write in this space. Rural: 0 Urban: 1	23	(__)
3.	Which one of the above types of communities best describes the community where you now live? a. (__) b. (__) c. (__) d. (__) e. (__)	24	(__)
4.	Are you married? (____) a. Yes. (____) b. No.	25	(__)
5.	Who is the chief wage earner in your home? (____) a. My father (or male guardian). (____) b. My mother (or female guardian). (____) c. Myself. (____) d. Other person. Who?_______________ (____) e. Insurance, social security or something like this.	26	(__)
6.	What is his or her (the chief wage earner's occupation? Please state the type of work, the position, and the kind of business and owner. ____________________________________ ____________________________________	27	(__)

	IBM	Code
7. About how far did he or she (the chief wage earner) go in school? (_____) a. 8th grade or less. (_____) b. 1-3 years of high school. (_____) c. Completed high school. (_____) d. Some college. (_____) e. Completed college. (_____) f. Don't know.	28	(___)
8. Is there a telephone in your home? (Read carefully - check only one answer.) (_____) a. No. (_____) b. Yes, a party line. (_____) c. Yes, a private line. (_____) d. Yes, but I don't know if it is a private line or party line.	29	(___)
9. Does your family rent or own the place where you live? (_____) a. Own home or are buying it. (_____) b. Rent home. (_____) c. Don't know.	30	(___)
10. Does your family have a car? (Read carefully-check only one answer.) (_____) a. No. (_____) b. Yes, one car bought used. (_____) c. Yes, one car bought new.	31	(___)

IBM Code

(____) d. Yes, one car but I don't know if it was bought new or used.

(____) e. We have two (or more) cars.

Do not write in this space.

Total: Questions 6 - 10

32,33 (__)(__)

11. If you were completely free to choose any job, what would you desire most as a lifetime job? Please be specific. Give kind of work and position.

34,35 (__)(__)

36 (__)

____

____

12. Sometimes we are not always able to do what we want most. What kind of job do you really expect to have one to two years after you finish college, vocational school, military service, or any other type of educational or training program that you expect to take part in? Name the kind of work or job, and position:

37,38 (__)(__)

39 (__)

____

____

13. How do you feel about the job you really expect to get? (Other than military service.)

40 (__)

(____) a. I would do almost anything to get the job.

(____) b. I would like to have the job.

(____) c. It doesn't really matter if I get the job.

(____) d. I had rather not have to do that kind of work.

	IBM	Code
(_____) e. I would very much rather do some kind of work.		
(_____) f. Don't know.		
14. How much education do you think is required for the kind of job you expect to have. (Other than military service?)	41	(___)
(_____) a. Less than high school diploma.		
(_____) b. High school diploma.		
(_____) c. Trade school, vocational school, etc.		
(_____) d. Two years of college.		
(_____) e. Four years of college.		
(_____) f. More than four years of college.		
(_____) g. Don't know.		
15. How much do you think the job will pay per year?	42,43	(___)(___)
$_________________per year.		
16. What do you think is the one most important thing that might prevent you from doing the type of work you expect to do? (Other than military service.)	44,45	(___)(___)
(_____) a. Nothing will prevent me from doing it.		
(_____) b. Lack of money for training or education.		
(_____) c. Training or education would be too difficult for me.		
(_____) d. Discrimination in employment practices.		

	IBM	Code
(_____) e. Family responsibility (parents, wife, children, etc.)		
(_____) f. No work available near here.		
(_____) g. Other. Specify: _______________ ________________________		
17. How long do you expect to do this kind of work? (The work you really expect to do after your education and military service.)	46	(____)
(_____) a. Less than 3 years.		
(_____) b. 3 to 6 years.		
(_____) c. 6 to 9 years.		
(_____) d. More than 9 years.		
(_____) e. All my life.		
18. If you do not expect to have that job all your life, what kind of work or job do you expect to have most of your lifetime?	47,48	(___)(___)
Type of job or work and position:_____________ ____		
19. What do you expect to do about military service?	50	(____)
(_____) a. Enlist		
(_____) b. Wait to be drafted.		
(_____) c. Get out of going some way or other.		
(_____) d. Not eligible - I have a physical disability.		
(_____) e. Don't know.		

	IBM	Code
20. How far do you really expect to go in school? (Check only one answer.) (_____) a. I don't expect to finish high school. (_____) b. Complete no more than the 12th grade. (_____) c. Complete a business, technical commercial or some other type of vocational program after high school. (_____) d. Graduate from a 2-year college. (_____) e. Graduate from a 4-year college. (_____) f. Complete additional studies after graduating from a college or university.	51	(____)
21. If you plan to go to school beyond high school, where do you plan to go? a. College: ____________________ b. Technical or vocational school: __________ ____________________	52	(____)
22. What curriculum or program do you plan to specialize in? Please be specific. a. College: ____________________ b. Vocational training: __________ ____________________	53,54	(___)(___)
23. Are you familiar with the term "Community College?" (_____) a. No.	56,57	(___)(___)

	IBM	Code
(_____) b. Yes. What is the name of a Community College? ______________________		
24. Where did you first hear about Community Colleges?	58,59	(__)(__)
(_____) a. From a friend.		
(_____) b. From my parents.		
(_____) c. Newspaper.		
(_____) d. School teacher or counselor.		
(_____) e. On the radio or TV.		
(_____) f. Other; specify: ______________		
25. Are you familiar with the term "Industrial Education Center," or "Technical Institute?"	60,61	(__)(__)
(_____) a. No.		
(_____) b. Yes. What is the name of an Industrial Education Center or Technical Institute? ______________________ ______________________		
26. Where did you first hear about the Industrial Education Center or Technical Institute?	62,63	(__)(__)
(_____) a. From a friend.		
(_____) b. From my parents.		
(_____) c. Newspaper.		
(_____) d. School teacher or counselor.		
(_____) e. On the radio or TV.		
(_____) f. Other; specify: ______________		

	IBM	Code
27. Are you familiar with any trade, technical, business or other types of vocational training school? (_____) a. No. (_____) b. Yes. What is the name of the school? ________________________ ________________________	64,65	(___)(___)

28. If you answered Yes to questions 23, 25, or 27, name some of the courses of study, training programs or curriculums offered at the school you named and the length of time and cost to complete the programs.

Name of training program, courses of study or curriculums	Total cost	Number of months to complete the program
a.________________________	$____	______________Months
b.________________________	$____	______________Months
c.________________________	$____	______________Months
d.________________________	$____	______________Months
e.________________________	$____	______________Months
f.________________________	$____	______________Months

66(___) 67(___) 68(___)

	IBM	Code
29. Do you know about any vocational or technical school that you may attend without first completing high school? (_____) a. No. (_____) b. Yes. What is the name of the school? ________________________ ________________________	69	(___)

	IBM	Code
30. Do you know where the nearest employment office (Employment Security Commission) is located?	70	(___)
31. Have you taken a course in high school called "Occupational Information," "Introduction to Occupations," "Career Exploration" or any other high school course that teaches about different jobs and kinds of work or occupations?	71	(___)
32. How do you and your friends rate socially in this school?	72	(___)

30. Do you know where the nearest employment office (Employment Security Commission) is located?

(_____) a. No.

(_____) b. Yes. Where is it located?

____

____

31. Have you taken a course in high school called "Occupational Information," "Introduction to Occupations," "Career Exploration" or any other high school course that teaches about different jobs and kinds of work or occupations?

(_____) a. Yes.

(_____) b. No.

(_____) c. We do not have a course like that in my school.

32. How do you and your friends rate socially in this school?

(_____) a. At the top.

(_____) b. Near the top.

(_____) c. About in the middle.

(_____) d. Near the bottom.

33. What school organizations or clubs do you now belong to or take part in?

Name or type of organization	Are you a member	Do you attend	Do you hold office or serve on a committee
a. Student council or government	Yes (___)	Yes (___)	Yes (___)

Name or type of organization		Are you a member	Do you attend	Do you hold office or serve on a committee
b.	Senior class officer	Yes (___)	Yes (___)	Yes (___)
c.	Hobby clubs such as photography or crafts (please list names)			
	______________	Yes (___)	Yes (___)	Yes (___)
	______________	Yes (___)	Yes (___)	Yes (___)
d.	Dramatics club	Yes (___)	Yes (___)	Yes (___)
e.	Monogram club	Yes (___)	Yes (___)	Yes (___)
f.	Newspaper staff	Yes (___)	Yes (___)	Yes (___)
g.	Annual staff	Yes (___)	Yes (___)	Yes (___)
h.	Vocational clubs, such as F.F.A. (please list)			
	______________	Yes (___)	Yes (___)	Yes (___)
	______________	Yes (___)	Yes (___)	Yes (___)
i.	Athletic teams (please list)			
	______________	Yes (___)	Yes (___)	Yes (___)
	______________	Yes (___)	Yes (___)	Yes (___)
j.	Other clubs (please specify)			
	______________	Yes (___)	Yes (___)	Yes (___)
	______________	Yes (___)	Yes (___)	Yes (___)

Do not write in this space.
Total Participation: 73,74 (___)(___)

IBM	Code
75	(___)

34. Which one of the following best describes the high school program or curriculum you are enrolled in?

(_____) a. College preparatory

(_____) b. Vocational

	IBM	Code
35. Here is a list of the kinds of job training courses vocational students take in schools around the country. Mark the number of the program that comes closest to the one you are taking the most work in during high school.	76,77	(____) (____)
(_____) a. Agriculture		
(_____) b. Air conditioning		
(_____) c. Airplane mechanics		
(_____) d. Auto body mechanics		
(_____) e. Automotive mechanics		
(_____) f. Brick or stone masonry		
(_____) g. Cabinet making		
(_____) h. Carpentry		
(_____) i. Commercial art		
(_____) j. Cooperative office or business training		
(_____) k. Diesel mechanics		
(_____) l. Distributive education		
(_____) m. Electricity		
(_____) n. Food trades		
(_____) o. Foundry		
(_____) p. Industrial cooperative training		
(_____) q. Machine shop		
(_____) r. Painting and decorating		
(_____) s. Plumbing (pipe fitting)		
(_____) t. Printing		
(_____) u. Radio - TV repair		
(_____) v. Sheet metal work		
(_____) w. Welding		
(_____) x. Other:______________________________		
36. What is your grade average for all your high school work?	78	(____)
(_____) a. A (either A-, A, or A+)		
(_____) b. B (either B-, B, or B+)		
(_____) c. C (either C-, C, or C+)		
(_____) d. D (either D-, D, or D+)		
(_____) e. Don't know.		
37. How many times did you talk with a guidance counselor this year about your future education or job training?	79	(____)

IBM Code

(_____) a. Never.
(_____) b. Once.
(_____) c. Two or three times.
(_____) d. Four or more times.
(_____) e. We have no guidance counselor.

38. Have you ever read a college catalog or a vocational school catalog? 80 (___)

College? (_____) a. No.

(_____) b. Yes. What college?_____

____

Vocational school:

(_____) c. No.

(_____) d. Yes. What school?______

____

39. In the past 12 months, have you ever written to or talked with a college or vocational school official about going to his school?

College: (_____) a. No.

(_____) b. Yes. What college?_____

____

Vocational school:

(_____) c. No.

(_____) d. Yes. What school?______

____

40. Have you filled out an application form for entrance in a college or vocational school next fall? 8 (___)

College: (_____) a. No.

(_____) b. Yes. What college?_____

____

Vocational school:

	IBM	Code
(_____) c. No.		
(_____) d. Yes. What school?______		
______________		
41. Did you ever stay away from school during this school year just because you didn't want to come?	9	(___)
(_____) a. No.		
(_____) b. Yes, for 1 or 2 days.		
(_____) c. Yes, for 3 to 6 days.		
(_____) d. Yes, for 7 to 15 days.		
(_____) e. Yes, for 16 or more days.		
42. Are you now working or have you ever worked?	10	(___)
Full-time: a. Yes (_____) b. No. (_____)		
Part-time: a. Yes (_____) b. No. (_____)		
If you are now working or have worked, list the kind(s) of job(s) or work:	11	(___)
a.______________________________	12	(___)
b.______________________________		
c.______________________________		
d.______________________________		
43. We are interested in how you feel about life and how you see it. Please state whether you agree or disagree with the following statements from the way you feel about things.		
a. Nowadays a person has to live pretty much for himself and let tomorrow take care of itself.	13	(___)
(___)Agree (___)Disagree (___)Don't know		

	IBM	Code
b. In spite of what people say, the lot of the average man is getting worse, not better. (___)Agree (___)Disagree (___)Don't know	14	(___)
c. It's hardly fair to bring children into the world with the way things look for the future. (___)Agree (___)Disagree (___)Don't know	15	(___)
d. These days a person doesn't know whom he can count on. (___)Agree (___)Disagree (___)Don't know	16	(___)
e. There is little use in writing to public officials because often they aren't really interested in the problems of the average man. (___)Agree (___)Disagree (___)Don't know	17	(___)
f. Things have usually gone against me in life. (___)Agree (___)Disagree (___)Don't know	18	(___)
Do not write in this space.	19	(__)

As we mentioned before, your answers to these questions are strictly confidential. No information about particular persons will be given to your school or anyone else. However, we need your name and address, and some other information so that we can locate and contact you several years from now to continue the study.

Please give us the following information:

PLEASE PRINT

a. Your name and address:

First name Middle Last

Street or RFD Address

City or Town County

b. Name and address of a relative or friend (living at a different address from the one you gave above) who will always know where you are living if you should move in the next few years.

First name Middle initial Last name

Street or RFD Address

City or Town County State

THANK YOU FOR HELPING US!

Appendix B

Variables, Their Level of Measurement, and Statistical Techniques Regarding Stated Hypotheses

Hypothesis	Variables	Level of Measurement	Statistical Technique
1	LOE	Nominal	Chi square
	Race	Nominal	
	IPI[a]	Nominal	
	IPI (segregated)[a]	Nominal	
2-3	LOE	Nominal	Chi square
	Race	Nominal	
	IPI[a]	Nominal	
	ISI[a]	Nominal	
4	LOE	Ordinal	Kendall's tau
	ISI	Ordinal	
	Race[a]	Nominal	
	ISI[a]	Nominal	
5-6	LOE	Ordinal	Kendall's tau
	IPI	Ordinal	
	Race[a]	Nominal	
	IPI[a]	Nominal	
7	LOE	Nominal	Chi square
	IPI (and segregation)	Nominal	
	Race[a]	Nominal	
	IPI[a]	Nominal	
8-9	LOE	Nominal	Chi square
	IPI (and segregation)	Nominal	
	Race[a]	Nominal	
	IPI[a]	Nominal	
10	LOE	Ordinal	Kendall's tau
	SES	Ordinal	
	Race[a]	Nominal	
11	LOE	Ordinal	Kendall's tau
	Size of school	Ordinal	
	Race[a]	Nominal	
12	LOE	Nominal	Chi square
	Community orientation	Nominal	
	Race[a]	Nominal	

Appendix B continued

Appendix B (continued)

Hypothesis	Variables	Level of Measurement	Statistical Technique
13-14	LOE	Nominal	Chi square
	Race	Nominal	
	SES[a]	Nominal	
	IPI[a]	Nominal	
	IPI (segregated)[a]	Nominal	
	Size of school[a]	Nominal	
	Community orientation[a]	Nominal	
15-16	LOE	Ordinal	Kendall's tau
	IPI, ISI	Ordinal	
	Race[a]	Nominal	
	IPI[a]	Nominal	
	ISI[a]	Nominal	
	SES[a]	Nominal	
	Size of school[a]	Nominal	
	Community orientation[a]	Nominal	
17	LOE	Ordinal	Kendall's tau
	KOEO	Ordinal	
	Race[a]	Nominal	
18	KOEO	Ordinal	Kendall's tau
	IPI, ISI	Ordinal	
	Race[a]	Nominal	
19	LOE	Ordinal	Kendall's tau
	OPB	Ordinal	
	Race[a]	Nominal	
20	OPB	Ordinal	Kendall's tau
	IPI, ISI	Ordinal	
	Race	Nominal	

Appendix C

Appendix Tables

Appendix Table 1. Frequency distribution of respondents by level of occupational expectation

Level of occupational expectation	Respondents		Categories	
	Number	Percent	Number	Percent
Very low				
23	1	.1	276	22.0
37	1	.1		
42	42	3.3		
44	1	.1		
45	23	1.8		
47	28	2.2		
50	17	1.4		
51	2	.2		
52	12	1.0		
54	16	1.3		
55	75	6.0		
57	9	.7		
58	8	.6		
59	41	3.3		
Low				
60	31	2.5	254	20.3
61	23	1.8		
62	11	.9		
63	49	3.9		
64	6	.5		
65	134	10.7		
Medium				
66	18	1.4	225	17.9
67	36	2.9		
68	52	4.1		
69	68	5.4		
70	51	4.1		
High				
71	8	.6		
72	35	2.8		

Table continued

Appendix Table 1. (continued)

Level of occupational expectation	Respondents Number	Respondents Percent	Categories Number	Categories Percent
73	23	1.8		
74	19	1.5		
75	80	6.4	229	18.3
76	29	2.3		
77	2	.2		
78	33	2.6		
Very high				
79	90	7.2		
80	26	2.1		
81	22	1.8		
82	15	1.2		
83	21	1.7	270	21.5
84	10	.8		
85	5	.4		
86	65	5.2		
89	4	.3		
93	12	1.0		
Total	1254[a]	100.2	1254	100.0

[a] Eight participants did not indicate expected occupations.

Appendix Table 2. Frequency distribution of respondents by intensity of physical integration

Physical integration score	Respondents		Categories	
	Number	Percent	Number	Percent
Low				
1	45	3.6	278	22.1
2	64	5.1		
3	85	6.7		
4	25	2.0		
5	59	4.7		
Medium				
6	71	5.6	321	25.3
7	16	1.3		
8	48	3.8		
9	34	2.7		
10	13	1.0		
11	46	3.6		
12	17	1.3		
13	17	1.3		
14	15	1.2		
16	28	2.2		
17	16	1.3		
High				
18	16	1.3	324	25.7
19	66	5.2		
20	17	1.3		
21	17	1.3		
22	67	5.4		
24	34	2.7		
25	18	1.4		
28	15	1.2		
29	12	1.0		
30	9	.7		
31	14	1.1		
32	11	.9		
63	28	2.2		
Subtotal	923	73.1	923	

Table continued

Appendix Table 2. (continued)

Segregated				
White	104	8.2		8.2
Nonwhite	235	18.6		18.6
Total	1262	99.9	1262	99.9

Appendix Table 3. Frequency distribution of respondents by intensity of social integration

Social integration score	Respondents		Categories	
	Number	Percent	Number	Percent
Low				
0	240	19.0	492	39.0
1	54	4.3		
2	10	.8		
3	188	14.9		
Medium				
4	16	1.3	451	35.7
5	5	.4		
6	192	15.2		
7	16	1.3		
8	6	.5		
9	108	8.6		
10	9	.7		
11	3	.2		
12	96	7.6		
High				
13	11	.9	319	25.3
14	3	.2		
15	62	4.9		
16	4	.3		
18	53	4.2		
19	4	.3		
20	3	.2		
21	35	2.8		
22	5	.4		
23	2	.2		
24	30	2.4		
25	5	.4		
27	20	1.6		
28	4	.3		
30	24	1.9		
31	2	.2		
33	10	.8		
34	1	.1		
36	13	1.0		
37	1	.1		

Table continued

Appendix Table 3. (continued)

Social integration score	Respondents		Categories	
	Number	Percent	Number	Percent
39	6	.5		
42	5	.4		
43	1	.1		
45	3	.3		
46	2	.2		
48	3	.2		
51	1	.1		
52	1	.1		
54	1	.1		
60	1	.1		
63	1	.1		
66	1	.1		
78	1	.1		
Total	1262	100.3	1262	100.0

Appendix Table 4. **Frequency distribution of respondents by socioeconomic status**

Socioeconomic status	Respondents		Categories	
	Number	Percent	Number	Percent
Low				
35	2	.2	424	33.6
42	48	3.8		
44	25	2.0		
45	23	1.8		
46	12	1.0		
47	138	10.9		
48	14	1.1		
49	7	.6		
50	30	2.4		
51	5	.4		
52	115	9.1		
53	5	.4		
Medium				
54	36	2.9	457	36.2
55	83	6.6		
56	4	.3		
57	27	2.1		
58	15	1.2		
59	23	1.8		
60	77	6.1		
61	27	2.1		
62	18	1.4		
63	23	1.8		
64	9	.7		
65	115	9.1		
High				
66	28	2.2		
67	21	1.7		
68	69	5.5		
69	25	2.0		
70	42	3.3		
71	7	.6		
72	41	3.2		
73	10	.8		
74	14	1.1		

Table continued

Appendix Table 4. (continued)

Socioeconomic status	Respondents		Categories	
	Number	Percent	Number	Percent
75	29	2.3		
76	9	.7		
77	6	.5		
78	10	.8		
79	22	1.7		
80	6	.5	381	30.2
81	11	.9		
82	5	.4		
83	7	.6		
84	1	.1		
86	8	.6		
88	1	.1		
89	3	.2		
93	6	.4		
Total	1262	100.0	1262	100.0

Appendix Table 5. Frequency distribution of respondents by size of school

Size of school	Respondents		Categories	
	Number	Percent	Number	Percent
Low				
20-29	22	1.7		
30-39	21	1.7		
40-49	42	3.3		
50-59	44	3.5		
60-69	68	5.4	460	36.4
70-79	50	4.0		
80-89	35	2.8		
90-99	62	4.9		
100-109	15	1.2		
110-119	26	2.1		
120-129	75	5.9		
Medium				
130-139	21	1.7		
140-149	56	4.4		
150-159	63	5.0		
160-169	11	.9		
170-179	13	1.0		
180-189	47	3.7	373	29.6
190-199	30	2.4		
200-209	28	2.2		
210-219	28	2.2		
220-229	57	4.5		
230-239	19	1.5		
High				
240-249	22	1.7		
250-259	16	1.3		
260-269	15	1.2		
270-279	31	2.5		
280-289	54	4.3		
330-339	42	3.3		
340-349	18	1.4		
380-389	17	1.3	429	34.0
390-399	35	2.8		
400-409	49	3.9		

Table continued

Appendix Table 5. (continued)

Size of school	Respondents		Categories	
	Number	Percent	Number	Percent
410-419	28	2.2		
420-429	16	1.3		
440-449	13	1.0		
470-479	18	1.4		
500-509	33	2.6		
620-629	22	1.7		
Total	1262	99.9	1262	100.0

Appendix Table 6. Frequency distribution of respondents by knowledge of occupational education opportunities

KOEO Responses	Respondents		Knowledge	Score		
	Number	Percent	Categories	Value	Number	Percent
KOEO-1						
No response	5	.4	Low	1	104	8.2
No	99	7.8				
Yes	44	3.5	Medium	2	121	9.6
Yes, but incorrect name	77	6.1				
Yes, and correct name	1037	82.2	High	3	1037	82.2
					1262	100.0
Total	1262	100.0				
KOEO-2						
No response	41	3.2	Low	1	672	53.2
No	631	50.0				
Yes	24	1.9	Medium	2	84	6.7
Yes, but incorrect name	60	4.8				
Yes, and correct name	506	40.1	High	3	506	40.1
Total	1262	100.0			1262	100.0
KOEO-3						
0	615	48.7	Low	1	615	48.7
1	178	14.1	Medium	2	349	27.7
2	171	13.5				
3	137	10.9	High	3	298	23.6
4	73	5.8				
5	29	2.3				
6	59	4.7				
Total	1262	100.0			1262	100.0

Appendix Table 7. Frequency distribution of respondents by occupational preparation behavior

OPR Responses	Respondents		Preparation	Score		
	Number	Percent	Categories	Value	Number	Percent
OPB-1						
No response	1	.1	Low	1	196	15.5
Stop now	4	.3				
High school only	191	15.1				
Vocational course	386	30.6	Medium	2	510	40.4
Two-year college	124	9.8				
Four-year college	348	27.6	High	3	556	
Post college	208	16.5				
Total	1262	100.0			1262	100.0
OPB-2						
Don't know	106	8.4	Very Low	1		8.4
D	81	6.4	Low	2		6.4
C	653	51.7	Medium	3		51.7
B	369	29.2	High	4		29.2
A	53	4.2	Very High	5		4.2
Total	1262	99.9				99.9
OPB-3						
No response	8	.6	Low	1	401	31.8
Never	184	14.6				
Once	209	16.6				
Two or three times	462	36.6	Medium	2	462	36.6
Four or more times	399	31.6	High	3	399	31.6
Total	1262	100.0			1262	100.0

Appendix Table 8. Percentage distribution of high physically integrated respondents by level of occupational expectation and by race

Level of occupational expectation	Race White (N = 190)	 Nonwhite (N = 133)	 Total (N = 323)
	Percent and Direction[a]		
Very high (79-93)	17.4 0	18.8 0	18.0
High (71-78)	23.2 +	9.8 -	17.6
Medium (66-70)	21.1 +	13.5 -	18.0
Low (60-65)	20.0 -	29.3 +	23.8
Very low (23-59)	18.4 -	28.6 +	22.6
Total	100.1	100.0	100.0

X^2 = 16.912; df = 4, Significant at the .01 level.

[a] Direction of deviation from expected frequency.

Appendix Table 9. Percentage distribution of medium and low physically integrated respondents by level of occupational expectation and by race

Level of occupational expectation	Race White (N = 530)	 Nonwhite (N = 65)	 Total (N = 595)
	Percent and Direction[a]		
Very high (79-93)	27.9 0	20.0 -	27.1
High (71-78)	18.3 0	10.8 -	17.5
Medium (66-70)	20.4 0	12.3 -	19.5
Low (60-65)	17.4 0	26.2 +	18.3
Very low (23-59)	16.0 -	30.8 +	17.6
Total	100.0	100.1	100.0

X^2 = 13.643; df = 4, Significant at the .01 level.

[a] Direction of deviation from expected frequency.

Appendix Table 10. Percentage distribution of high socially integrated respondents by level of occupational expectation and by race

Level of occupational expectation		Race		
		White (N = 230)	Nonwhite (N = 88)	Total (N = 318)
		Percent and Direction[a]		
Very high	(79-93)	44.3 +	31.8 -	40.9
High	(71-78)	28.3 -	33.0 +	29.9
Medium	(66-70)	15.2 +	11.4 -	14.2
Low	(60-65)	8.3 -	14.8 +	10.1
Very low	(23-59)	3.9 -	9.1 +	5.3
Total		100.0	100.0	100.0

X^2 = 9.461; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency

Appendix Table 11. Percentage distribution of medium socially integrated respondents by level of occupational expectation and by race

Level of occupational expectation		Race		
		White (N = 294)	Nonwhite (N = 154)	Total (N = 448)
		Percent and Direction[a]		
Very high	(79-93)	20.4 -	20.8 +	20.5
High	(71-78)	17.7 +	14.3 -	16.5
Medium	(66-70)	23.1 +	15.6 -	20.1
Low	(60-65)	18.4 -	23.4 +	20.1
Very low	(23-59)	20.4 -	26.0 +	22.3
Total		100.0	100.1	99.9

X^2 = 6.181; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency

Appendix Table 12. Percentage distribution of low socially integrated respondents by level of occupational expectation and by race

Level of occupational expectation	Race		
	White (N = 297)	Nonwhite (N = 191)	Total (N = 488)
	Percentage and Direction[a]		
Very high (79-93)	11.1 +	7.9 -	9.8
High (71-78)	14.1 +	9.9 -	12.5
Medium (66-70)	21.5 +	12.6 -	18.0
Low (60-65)	26.9 0	27.2 0	27.0
Very low (23-59)	26.3 -	42.4 +	32.6
Total	99.9	100.0	99.9

X^2 = 17.396; df = 4, Significant at the .01 level.

[a] Direction of deviation from expected frequency.

Appendix Table 13. Percentage distribution of white physically integrated and segregated respondents by level of occupational expectation

Level of occupational expectation	Intensity of integration		
	Segregation (N = 100)	Integration (N = 720)	Total (N = 820)
	Percent and Direction[a]		
Very high (79-93)	14.0 -	25.1 +	23.8
High (71-78)	18.0 -	19.6 0	19.4
Medium (66-70)	19.0 -	20.6 0	20.9
Low (60-65)	23.0 +	18.1 0	18.6
Very low (23-59)	26.0 +	16.7 -	17.8
Total	100.0	100.1	100.0

X^2 = 10.244; df = 4, Significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 14. Percentage distribution of white high physically integrated and segragated respondents by level of occupational expectation

Level of occupational expectation	Intensity of Integration		
	Segregation (N = 100)	High integration (N = 190)	Total (N = 290)
	Percent and Direction[a]		
Very high (79-93)	14.0 -	17.4 +	16.2
High (71-78)	18.0 -	23.1 +	21.4
Medium (66-70)	19.0 -	21.1 +	20.3
Low (60-65)	23.0 +	20.0 -	21.0
Very low (23-59)	26.0 +	18.4 -	21.0
Total	100.0	100.0	99.9

X^2 = 3.479; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 15. Percentage distribution of white medium physically integrated and segregated respondents by level of occupational expectation

Level of occupational expectation	Intensity of Integration		
	Segregation (N = 100)	Medium integration (N = 267)	Total (N = 367)
	Percent and Direction[a]		
Very high (79-93)	14.0 -	25.9 +	22.6
High (71-78)	18.0 0	18.7 0	18.5
Medium (66-70)	19.0 -	21.7 0	21.0
Low (60-65)	23.0 +	19.8 +	20.7
Very low (23-59	26.0 +	13.8 -	17.2
Total	100.0	99.9	100.0

X^2 = 11.386; df = 4, Significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 16. Percentage distribution of white low physically integrated and segregated respondents by level of occupational expectation

Level of occupational expectation		Intensity of physical integration		
		Segregation (N = 100)	Low integration (N = 263)	Total (N = 363)
		Percent and Direction[a]		
Very high	(79-93)	14.0 -	30.0 +	25.6
High	(71-78)	18.0 0	17.9 0	17.9
Medium	(66-70)	19.0 0	19.0 0	19.0
Low	(60-65)	23.0 +	14.8 -	17.1
Very low	(23-59)	26.0 +	18.2 -	20.4
Total		100.0	99.9	100.0

X^2 = 12.241; df = 4, Significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 17. Percentage distribution of nonwhite high physically integrated and segregated respondents by level of occupational expectation

Level of occupational expectation		Intensity of physical integration		
		Segregation (N = 235)	High integration (N = 133)	Total (N = 368)
		Percentage and Direction[a]		
Very high	(79-93)	15.7 -	18.8 +	16.8
High	(71-78)	21.3 +	9.8 -	17.1
Medium	(66-70)	13.6 0	13.5 0	13.6
Low	(60-65)	19.1 -	29.3 +	22.8
Very low	(23-59)	30.2 +	28.6 -	29.6
Total		99.9	100.0	99.9

X^2 = 10.963; df = 4, Significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 18. Percentage distribution of nonwhite medium and low physically integrated and segregated respondents by level of occupational expectation

Level of occupational expectation	Intensity of physical integration		
	Segregation (N = 235)	Medium and low integration (N = 64)	Total (N = 299)
	Percent and Direction[a]		
Very high (79-93)	15.7 -	20.3 +	16.7
High (71-78)	21.3 +	9.4 -	18.7
Medium (66-70)	13.6 0	12.5 0	13.4
Low (60-65)	19.1 -	26.6 +	20.7
Very low (23-59)	30.2 0	31.2 0	30.4
Total	99.9	100.0	99.9

X^2 = 5.829; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 19. Percentage distribution of respondents by level of occupational expectation and by community orientation

Level of occupational expectation	Community orientation		
	Rural (N = 733)	Urban (N = 518)	Total (N = 1251)
	Percent and Direction[a]		
Very high (79-93)	14.3 -	31.9 +	21.6
High (71-78)	13.8 -	24.5 +	18.2
Medium (66-70)	17.6 0	18.5 0	18.0
Low (60-65)	24.8 +	13.7 -	20.2
Very low (23-59)	29.5 +	11.4 -	22.0
Total	100.0	100.0	100.0

X^2 = 126.249; df = 4, Significant at the .001 level.

[a] Direction of deviation from expected frequency.

Appendix Table 20. Percentage distribution of nonwhite respondents by level of occupational expectation and by community orientation

Level of occupational expectation	Community orientation		
	Rural (N = 266)	Urban (N = 165)	Total (N = 431)
	Percent and Direction[a]		
Very high (79-93)	11.6 -	26.7 +	17.4
High (71-78)	12.0 -	22.4 +	16.0
Medium (66-70)	12.4 -	15.1 +	13.5
Low (60-65)	26.7 +	18.2 -	23.4
Very low (23-59)	37.2 +	17.6 -	29.7
Total	99.9	100.0	100.0

X^2 = 37.008; df = 4, Significant at the .001 level.

[a] Direction of deviation from expected frequency.

Appendix Table 21. Percentage distribution of white respondents by level of occupational expectation and by community orientation

Level of occupational expectation	Community orientation		
	Rural (N = 467)	Urban (N = 353)	Total (N = 820)
Very high (79-93)	15.8 -	34.3 +	23.8
High (71-78)	14.8 -	25.5 +	19.4
Medium (66-70)	20.6 0	20.1 0	20.4
Low (60-65)	23.7 +	11.6 -	18.5
Very low (23-59)	25.1 +	8.5 -	17.9
Total	100.0	100.0	100.0

X^2 = 87.412; df = 4, Significant at the .001 level.

[a] Direction of deviation from expected frequency.

Appendix Table 22. Percentage distribution of physically integrated high and medium socioeconomic status respondents by level of occupational expectation and by race

Level of occupational expectation	White (N = 614)	Nonwhite (N = 70)	Total (N = 684)
	Race		
	Percent and Direction[a]		
Very high (79-93)	27.2 +	22.8 -	26.8
High (71-78)	21.3 +	10.0 -	20.2
Medium (66-70)	21.8 0	15.7 -	21.2
Low (60-65)	15.5 -	35.7 +	17.5
Very low (23-59)	14.2 0	15.7 +	14.3
Total	100.0	99.9	100.0

$X^2 = 20.333$; df = 4, Significant at the .001 level.

[a] Direction of deviation from expected frequency.

Appendix Table 23. Percentage distribution of physically integrated low socioeconomic status respondents by level of occupational expectation and by race

Level of occupational expectation	White (N = 106)	Nonwhite (N = 127)	Total (N = 233)
	Race		
	Percent and Direction[a]		
Very high (79-93)	13.2 -	17.3 +	15.5
High (71-78)	9.4 0	9.4 0	9.4
Medium (66-70)	13.2 0	11.8 +	12.4
Low (60-65)	33.0 +	24.4 -	28.3
Very low (23-59)	31.1 -	37.0 -	34.3
Total	99.9	99.9	99.9

$X^2 = 2.817$; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 24. Percentage distribution of segregated high and medium socioeconomic status by level of occupational expectation and by race

Level of occupational expectation	Race White (N = 69)	 Nonwhite (N = 78)	 Total (N = 147)
	Percent and Direction[a]		
Very high (79-93)	18.8 -	23.1 +	21.1
High (71-78)	18.8 -	26.9 +	23.1
Medium (66-70)	20.3 +	7.7 -	13.6
Low (60-65)	20.3 0	20.5 0	20.4
Very low (23-59)	21.7 0	21.8 0	21.8
Total	99.9	100.1	100.0

X^2 = 5.614; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 25. Percentage distribution of segregated low socioeconomic status respondents by level of occupational expectation and by race

Level of occupational expectation	Race White (N = 32)	 Nonwhite (N = 157)	 Total (N = 189)
	Percent and Direction[b]		
Very high (79-93)[a] and high	18.8 -	30.6 +	28.6
Medium (66-70)	15.6 0	16.6 0	16.4
Low (60-65)	28.1 +	18.5 -	20.1
Very low (23-59)	37.5 +	34.4 0	34.9
Total	100.0	100.1	100.0

X^2 = 2.640; df = 3, Not significant at the .05 level.

[a] The very high and high LOE categories were combined as the N in some cells was not large enough for the chi square test.

[b] Direction of deviation from expected frequency.

Appendix Table 26. Percentage distribution of physically integrated large school respondents by level of occupational expectation and by race

Level of occupational expectation		Race		
		White (N = 291)	Nonwhite (N = 91)	Total (N = 382)
		Percent and Direction[a]		
Very high	(79-93)	25.8 +	20.9 -	24.6
High	(71-78)	22.3 +	11.0 -	19.6
Medium	(66-70)	24.4 +	14.3 -	22.0
Low	(60-65)	14.4 -	19.8 +	15.7
Very low	(23-59)	13.1 -	34.1 +	18.1
Total		100.0	99.9	100.0

$X^2 = 26.644$; df = 4, Significant at the .001 level.

[a] Direction of deviation from expected frequency.

Appendix Table 27. Percentage distribution of physically integrated medium school respondents by level of occupational expectation and by race

Level of occupational expectation		Race		
		White (N = 246)	Nonwhite (N = 61)	Total (N = 307)
		Percent and Direction[a]		
Very high	(79-93)	28.0 +	18.0 -	26.1
High	(71-78)	22.2 +	6.6 -	15.6
Medium	(66-70)	17.5 +	11.5 -	16.3
Low	(60-65)	19.1 -	34.4 +	22.1
Very low	(23-59)	17.5 -	29.5 +	19.9
Total		100.0	100.0	100.0

$X^2 = 15.715$; df = 4, Significant at the .01 level.

[a] Direction of deviation from expected frequency.

Appendix Table 28. Percentage distribution of physically integrated small school respondents by level of occupational expectation and by race

Level of occupational expectation		Race		
		White (N = 183)	Nonwhite (N = 46)	Total (N = 229)
		Percent and Direction[a]		
Very high	(79-93)	20.2 0	17.4 -	19.7
High	(71-78)	17.5 0	13.0 -	16.6
Medium	(66-70)	18.6 +	13.0 -	17.5
Low	(60-65)	22.4 -	37.0 +	25.3
Very low	(23-59)	21.3 0	19.6 -	21.0
Total		100.0	100.0	100.1

X^2 = 4.3587; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 29. Percentage distribution of physically integrated urban respondents by level of expectation and by race

Level of occupational expectation		Race		
		White (N = 335)	Nonwhite (N = 76)	Total (N = 411)
		Percent and Direction[a]		
Very high	(79-93)	34.6 +	27.6 -	33.3
High	(71-78)	25.7 +	17.1 -	24.1
Medium	(66-70)	20.3 +	14.5 -	19.2
Low	(60-65)	11.3 -	22.4 +	13.4
Very low	(23-59)	8.1 -	18.4 +	10.0
Total		100.0	100.0	100.0

X^2 = 16.184; df = 4, Significant at the .01 level.

[a] Direction of deviation from expected frequency.

Appendix Table 30. Percentage distribution of physically integrated rural respondents by level of expectation and by race

Level of occupational expectation	Race White (N = 384)	 Nonwhite (N = 121)	 Total (N = 505)
	Percent and Direction[a]		
Very high (79-93)	16.9 0	14.0 -	16.2
High (71-78)	14.3 +	5.8 -	12.3
Medium (66-70)	20.8 +	12.4 -	18.8
Low (60-65)	23.7 -	32.2 +	25.7
Very low (23-59)	24.2 -	35.5 +	26.9
Total	99.9	99.9	99.9

X^2 = 16.393; df = 4, Significant at the .01 level.

[a] Direction of deviation from expected frequency.

Appendix Table 31. Percentage distribution of segregated urban respondents by level of occupational expectation and by race

Level of occupational expectation	Race White (N = 18)	 Nonwhite (N = 89)	 Total (N = 107)
	Percent and Direction[a]		
Very high (79-93)	27.8 +	25.8 0	26.2
High (71-78)	22.2 -	27.0 0	26.2
Medium (66-70)	16.7 0	15.7 0	15.9
Low (60-65)	16.7 +	14.6 0	15.0
Very low (23-59)	16.7 0	16.8 0	16.8
Total	100.1	99.9	100.1

X^2 = 0.201; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency.

Appendix Table 32. Percentage distribution of segregated respondents by level of occupational expectation and by race

Level of occupational expectation		Race		
		White (N = 83)	Nonwhite (N = 145)	Total (N = 228)
		Percent and Direction[a]		
Very high	(79-93)	10.8 0	9.6 0	10.1
High	(71-78)	16.9 0	17.2 0	17.1
Medium	(66-70)	19.3 +	12.4 -	14.9
Low	(60-65)	24.1 +	22.1 0	22.8
Very low	(23-59)	28.9 -	38.6 +	35.1
Total		100.0	99.9	100.0

$X^2 = 3.258$; df = 4, Not significant at the .05 level.

[a] Direction of deviation from expected frequency.

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